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# Pension Systems in East Asia and the Pacific: Challenges and Opportunities

Robert Holzmann  
Ian W. Mac Arthur  
Yvonne Sin

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Social Protection Unit, The World Bank





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### **Abstract**

With the recovery from the recent crisis, countries of the East Asia and Pacific region are rethinking their financial and social policy, including old-age protection. Population aging, in combination with ongoing urbanization and economic transformation, will place increasing pressure on traditional family care arrangements. Coverage under formal pension systems is generally low, and the absence of social safety nets for the needy elderly poses risks in the face of breaks in the economic growth path. In addition to common systemic challenges, formal old-age income support systems confront issues specific to their design type: (i) The national provident fund and social security-style systems with reserve funds have demonstrated problems with investment policy and performance, governance and management. (ii) In the established market economies, social security-type systems are fiscally unsustainable in the long run and often have a weak benefit-contribution link. (iii) These types of systems encounter additional problems in transition economies, including low contribution collection from previously socialized enterprises and rising benefit take-up, partly as a consequence of the policy response to labor market disequilibria. Despite the formidable reform agenda, countries have abundant opportunities to address these issues, and the low level of coverage, predominance of retirement schemes still in evolution and existence of funded provisions in many countries provide an environment conducive to reform. Options involve (i) avoiding mistakes (adopting an integrated view on retirement income provision, balancing individual equity and social equity with efficiency considerations, averting fiscal unsustainability and integrating public and private sector pensions); (ii) being innovative (moving toward a multipillar structure, prudently extending coverage, trying new approaches to reduce administrative costs and extending social risk management through informal support and safety nets); and (iii) fostering financial markets (decentralizing pension fund management; reviewing governance, regulation and supervision; and creating or supporting the provision of new instruments).

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\*\* Robert Holzmann, Director, Social Protection, The World Bank (rholzmann@worldbank.org); Ian W. Mac Arthur, Operations Officer, Social Protection, The World Bank (imacarthur@worldbank.org); Yvonne Sin, Sr. Social Protection Specialist, Social Protection, The World Bank (ysin@worldbank.org). Mukul Asher, National University of Singapore; Christopher Bender, Professional Education Ventures; and Pat Wiese provided country profiles and additional input. The paper also profited from various comments and suggestions, most importantly from Mark Dorfman, Alberto Roque Musalem and Mukul Asher, who made a comprehensive review of the text and proposed several ways to improve it.



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## List of Abbreviations

AFR	Affordable Replacement Rate
APF	<i>Administradores de los Fondos de Pensiones</i>
CNPF	Committee of National Pension Fund Operation (Korea)
CPF	Central Provident Fund (Singapore)
CPFIS	Central Provident Fund Investment Scheme
DB	Defined Benefit
DC	Defined Contribution
EAP	East Asia and the Pacific
EET	Exempt (contribution), Exempt (return), Taxed (withdrawal)
ECA	Europe and Central Asia
EPF	Employee Provident Fund (Malaysia)
GDP	Gross Domestic Product
IPD	Implicit Pension Debt
LAC	Latin America and the Caribbean
MPF	Mandatory Provident Fund (Hong Kong)
MENA	Middle East and North Africa
NDC	Notional Defined Contribution
OECD	Organization for Economic Cooperation and Development
PPP	Purchasing Power Parity
RCR	Required Contribution Rate
SA	South Asia
SOE	State Owned Enterprise
SSA	Sub-Saharan Africa
SSS	Social Security System (Philippines)
SRM	Social Risk Management
TEE	Taxed (contribution), Exempt (return), Exempt (withdrawal)
TFR	Total Fertility Rate



## **I. Introduction and Summary of Findings and Recommendations**

The financial, economic and social crisis that struck many countries in the East Asia and Pacific region in mid-1997 has revealed the insufficiency of existing social risk management instruments in general and of those for the elderly population in particular. To finance old age consumption, most elderly in the region rely on intra-family income support, which is coming under pressure through population aging, urbanization, reduced family linkages and sociocultural change affecting family care patterns. The existing funded and unfunded public pension programs in most countries cover only a small share of the labor force and face problems of their own, such as meager rates of return in funded schemes and fiscal unsustainability in unfunded ones. This calls for taking stock of current means of old-age income provision and preparing for the future.

This paper reviews the most important challenges to old age income systems in the region and examines opportunities for their design or reform. While covering all the region's countries in principle, the paper concentrates on those for which there is a strong knowledge base (China, Hong Kong, Indonesia, Korea, Mongolia, Malaysia, Singapore, Thailand, the Philippines and Vietnam). The text, tables and annexes variably include partial coverage of Brunei Darussalam, Papua New Guinea and Taiwan ROC, while they mostly do not address some transition economies due to scarcity of information (Lao PDR, Cambodia, and Myanmar). The main concern of the analysis is retirement income provisions, with only some reference to survivors and disability pensions. While the latter are important, space and information limitations impede a more comprehensive treatment for now.

The paper contains three chapters. The remainder of Chapter 1 (i) highlights the main demographic and economic characteristics of the region, (ii) outlines the main strategies and arrangements of social risk management (SRM) for old age, and (iii) provides preliminary conclusions and recommendations on challenges and opportunities. Chapter 2 examines in some detail the main challenges to old-age income support in the region, including demographic and economic shifts, the need to extend coverage and systemic issues faced by current retirement schemes. Chapter 3 deals with opportunities in the design or reform of retirement income provisions that involve avoiding mistakes, being innovative, and fostering financial markets. Annexes A and B provide basic statistical information and profiles of retirement income schemes for selected countries, respectively. The country profiles summarize information in a standard format in order to provide a uniform basis of assessment.

### **1. Demographic and Economic Profile of the Region**

The countries of the region demonstrate considerable variation on certain demographic and economic indicators but also share several main features, with consequences for pension system design and reform:

- Population size differs greatly among the countries (Table I.1). On the one hand, there are small countries and city-states with populations ranging from a few hundred thousand (Brunei) to a few million (Singapore and Hong Kong)<sup>1</sup> and low-density mid-sized countries containing populations under 5 million (Lao PDR, Mongolia, Papua New Guinea). Several mid-sized countries have populations between 10 and 100 million (Cambodia, Korea, Malaysia, Myanmar, Philippines and Thailand). At the other extreme, the region holds the countries with the largest and the 5<sup>th</sup> largest populations in the world (China and Indonesia). The size of a country's population influences practical aspects of its old-age income security system, such as the universality of approach, administrative capacity, and reform implementation (consensus and speed).
- The countries also differ with regard to income level (Table I.1). Measured in pre-crisis income (GDP per capita in PPP, 1996), the region contains some of the world's most prosperous countries (Hong Kong and Singapore), some of its poorest (Cambodia, Lao PDR, Mongolia, Myanmar and Vietnam), and various threshold countries whose income level is close to or above that of low-income European Union countries (Thailand, Malaysia and Korea). Higher income levels increase the demand for old-age leisure, i.e. retirement income provisions.
- The income level is positively related to the percentage of population residing in urban areas (Table I.1) or negatively related to the share of employees in agriculture, with major differences among the countries. In a few countries, agriculture has very little importance (Brunei, Hong Kong and Singapore), but in many others it still employs well over 50% of the workforce (such as China, the Philippines, Thailand and Vietnam). Informal intra-family and community arrangements have traditionally provided old-age income in the agricultural sector.
- Various countries in the region are moving from centrally planned to market-oriented economic structures (Cambodia, China, Lao PDR, Mongolia, Myanmar and Vietnam). In comparison to market economies with a similar income level, centrally planned economies typically have a higher share of civil servants and public enterprise employees in the formal sector labor force, with both groups normally eligible for generous and unfunded pension provisions. In contrast to the transition economies in Europe and Central Asia, state-owned enterprises (SOEs) in some countries of East Asia have inherited direct responsibility for providing retirement income.
- The old age dependency ratio (population aged 65 and above to population aged 15 to 64) is still relatively low in countries of the region (Table I.1), ranging mostly between 5% to 8%, with the main exception being Hong Kong (13.8%), followed by China (9.6%) and Singapore (9.0%). Over the next four decades, however, these ratios are projected to roughly triple on average, putting a strain on informal and government provided schemes.
- With few exceptions (Singapore and Malaysia) the coverage of the work force under some form of public pension scheme (contributors/labor force) is very low (Table I.1). In all countries mandated retirement schemes cover the public sector (including security forces). However, in the private sector extensive informal economic activities and

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<sup>1</sup> Hong Kong became a Special Administrative Region of the Peoples' Republic of China in 1997.



limited participation of formal enterprises in retirement schemes – participation is often mandated only for medium and large firms – contributes to low overall coverage.

- Various countries in the region have established national provident funds (such as Brunei, Malaysia and Singapore) or public schemes, which are basically unfunded but still non-mature and bolstered by reserve funds (Korea and Philippines, and also Vietnam in 1995 and Thailand in 1999). While these countries are in a relatively good position to face future pension liabilities, in order to do so effectively, they must confront problems in the design and performance of the schemes.

## **2. Strategies and Arrangements for Social Risk Management in Old Age**

Old-age income support, which protects against the reduced earning capacity of the elderly, takes two main forms: (i) an explicit or implicit contract in which individuals support current elderly while young with the understanding that the next generation will do likewise when they are old, and (ii) savings that individuals acquire during their working lives, which they can gradually sell when old or convert to a life annuity at retirement to protect against the uncertainty of death. While these two principal options do not differ importantly under steady state conditions, in reality significant differences do emerge.

Under the ideal setting of a full-information economy, the purchase of an annuity contract is the best instrument of old-age income protection.<sup>2</sup> Since risks are known and exogenous, insurance companies can fairly price and offer these products in a non-distortionary manner. However, in reality asymmetric information gives rise to moral hazard, adverse selection and incomplete property rights, which lead to unfair pricing, distorted markets and insufficient or absent financial market institutions. Thus, societies have developed alternative methods of dealing with old-age income risk that form part of social risk management (Holzmann and Jorgensen, 1999 and 2000; Table I.2).

In rural societies without financial market instruments, individuals rely on informal/personal arrangements for income support in old age. These consist largely of intra-generational contracts within the extended family or community (risk mitigation) supplemented by continued but reduced labor participation by most elderly and conversion of real assets for the lucky few (risk coping). Also, sociocultural norms influence the well being of the aged (through risk reduction). In East Asia this is evident in the traditions of filial piety and respect for the elderly. In this context, Asian cultures sometimes resist Western-style income transfer schemes because of their potentially negative impact on family networks. However, the family support system is increasingly vulnerable to demographic shifts, urbanization and the effects of globalization.

At the other end of the spectrum are publicly mandated and unfunded retirement provisions – a society-wide inter-generational contract – that reflect perceived myopia of individuals but also political objectives such as inter- and intra-generational income redistribution. They are

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<sup>2</sup> In this scenario society would care for the destitute – the deserving poor – via charity or public transfers.

often present in countries lacking adequate financial market instruments and consist, in basic form, of social insurance arrangements for the active population and social assistance arrangements for the elderly deserving poor. This type of situation exists in the Philippines (since 1957), reflecting the influence of the United States, in Korea (since 1988), reflecting the proximity to Japan, and recently in Thailand, reflecting Central European influence by some academics and policy makers. Moreover, China is currently attempting to unify diverse industry- and regionally based schemes through the social insurance principle in order to create greater risk pooling and diminish large variation in contribution rates.

Other countries have restricted the unfunded public pension pillar and mandated a funded component under government regulation and supervision. This has taken the form of a provident fund model, but at the national level, likely as a result of the colonial (English) tradition and an emphasis on saving. These funds have provisions for either public (Brunei, Malaysia and Singapore) or private management (Hong Kong and Indonesia).<sup>3</sup> Intra-generational redistribution to the lifetime poor is not possible under the provident funds, and in most of these countries, social assistance programs are small by western standards. Thus, the overall approach to old-age income security generally reflects the relative aversion to public handouts in these societies among the populations in general.

Financial market-based provisions under individual choice have some importance in the region during the accumulation phase, but little during the disbursement phase. Precautionary saving, tax-favored retirement saving plans and occupational schemes for employees in larger enterprises exist in many countries. The elderly are typically unable to convert accumulated savings and assets into an annuity during retirement but often engage in the transfer of assets to the next generation in exchange for intra-family support.

Clearly, the countries in the region face important challenges and choices, inter alia: What is the appropriate balance between informal and formal (publicly provided and market-based) arrangements? When strengthening the fiscal basis of the unfunded public schemes, how much emphasis should the mandatory, fully funded pillar and the voluntary savings pillar receive? How should the national provident funds be decentralized to improve governance, investment return and individual choice?

### **3. Preliminary Conclusions and Recommendations**

The assessment of social and economic trends and review of current pension provisions indicates challenges as well as opportunities for the countries of the region, giving rise to the following main conclusions and recommendations:

1. While countries in the region are far from uniform in terms of economic development and retirement income provision, they face several **basic common issues**, most importantly:

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<sup>3</sup> The "private" management in Indonesia in effect appears to be quasi-public.

- The countries have rapidly aging populations, resulting from a deep and, in some cases, continuing fall in fertility and rising life expectancy at all ages. As a result, the region has one of the most pronounced aging patterns in the world, and the ratio of elderly to the working-age population is projected to triple over the next 40 years, reaching almost 27% by 2040. This level should be only marginally less than that of Europe and Central Asia (ECA) and well above that of Latin America and the Caribbean (LAC), South Asia (SA), Middle East and North Africa (MENA) and Sub-Saharan Africa (SSA).
- While extensive urbanization has already taken place in some countries in recent decades, during the next thirty years a sustained and often dramatic move toward residence in urban areas is projected. By 2030, there will be only a few countries in which the share of urban population is expected to be less than 50% (Cambodia, Lao PDR, Myanmar, Papua New Guinea, Thailand and Vietnam). In many other countries it is predicted to reach 70% or more (including Malaysia and the Philippines).
- The traditionally strong economic growth path in the region, which efficiently propelled poverty reduction over several decades, has experienced recent breaks, most notably in 1997 with the financial crisis that reversed income growth in several countries and slowed it in most of the others.
- Coverage of the private sector labor force under publicly mandated or provided pension systems is generally very low, reaching above 50% in only 2 countries (Singapore and Malaysia), while it is below 20% in most others. Pension provisions cover an even smaller share of the current elderly, and the access of the poor elderly to social assistance-type provisions is mostly limited or non-existent.

While population aging, urbanization, and the effects of globalization will reduce the capacity and, perhaps, the willingness of younger generations to cater to a rising number of elderly within the family compound, under current conditions, the vast majority of future elderly will have to rely on family and community support for their old-age consumption. Despite the resilience of informal support mechanisms, they have shown vulnerability in crisis situations, especially in the absence of safety nets and widespread coverage under formal retirement schemes. This demands a rapid and comprehensive rethinking of old-age income support in the region, which will require governments to direct attention to the following areas:

- Countries must determine their optimal positions in the social risk management matrix. How much informal income support for the elderly could remain? How much income support can the government provide directly or mandate through financial market instruments? The rise of the old-age dependency ratio suggests that governments will encounter limitations in raising the necessary budgetary resources and should limit their role to the provision of basic social insurance and social assistance. The vast majority of old-age income support should derive from pre-funded arrangements.
- A comprehensive view of old-age income support can help balance informal and formal, market-based and government-provided, risk-coping and risk-mitigating approaches and instruments for the benefit of the individual and the society. Currently, this is largely

missing in the region. Different government actors manage programs with little coordination; some government institutions address retirement income merely as a financial market issue and others solely from a social policy perspective; tax rules and saving vehicles are diverse and inconsistent; etc. An inter-ministerial task force, a planning institution with comprehensive participation, or a think-tank in the prime minister's office could successfully incorporate a broader approach.

- From a systemic perspective, among the existing formalized pension arrangements there are important differences between the public and private sectors. Civil servants and public employees normally enjoy generous, mostly unfunded benefits. Meanwhile, private sector workers most often benefit from pension provisions, either by law or practice, only when they belong to large firms, and different formulas, eligibility rules and funding mechanisms determine actual benefits, which are usually inferior to those in the public sector. Such differences impede labor mobility between the sectors and also create obstacles for reform. Creating a seamless, common pension scheme for public and private sector employees should be a prominent reform objective.
- Other common systemic issues include the creation of an efficient administration, raising the retirement age and bringing the level for women up to equal that of men, providing annuities and indexation, establishing consistency in tax treatment, and coordinating old-age benefits for migrants.

2. Countries in the region must also deal with **specific systemic reform issues**<sup>4</sup> that vary according to the nature of their current pension systems, which fall into three main groups: National Provident Fund Systems (Brunei, Hong Kong, Indonesia, Malaysia, Papua New Guinea and Singapore); Social Security Type Systems in market economies (Korea, Philippines and Thailand); and Social Security Type Systems in transition economies (China, Lao PDR, Cambodia, Myanmar, Mongolia and Vietnam).

The provident fund systems in Brunei, Hong Kong, Indonesia, Malaysia, Papua New Guinea and Singapore operate largely at the national level under public administration. Only the Mandatory Provident Fund system in Hong Kong, which starts in 2000, relies on decentralized and private management. Provident funds, which operate on the basis of defined contribution, enjoy full funding and, in principle, provide a strong benefit-contribution link, which allow them to avert the financial unsustainability and distortions in pay-as-you-go social insurance schemes. However, the centralized nature of most mandated funds poses several specific problems:

- mandates and limitations on investment (e.g., no or limited foreign investment to keep funds in-country), which result in lack of diversification and, in combination with few

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<sup>4</sup> Investment and regulation strategies mentioned here and discussed in Chapter 3 and the pace of reform will vary in different countries according to the extent to which: (i) capital markets are shallow and poorly regulated, and corporate governance is poor, (ii) government controlled or guided enterprises predominate on the stock exchange, and/or (iii) private pension fund management industry is insufficiently developed.

domestic options, a low-performance portfolio weighted towards deposits and government bonds;

- government control of fund use through a governance structure that over-represents its interests, thus making fund resources hostage to the public sector and budgetary needs;
- management practices that emphasize social and economic policy objectives (e.g., financing of public sector projects, housing, health, etc.) other than old-age income support, which contributes to low financial returns to investment;
- an investment regime that does not contribute to the development of financial markets and instruments, manifested in part in the inadequate supply of annuities (i.e., benefits are almost always lump-sum) and the mismatch between short-term assets and long-term liabilities; and,
- the risk that investment decisions lack transparency and the sheer size of transactions, which could promote excessive risk taking while negatively affecting capital markets development.

As a result of these characteristics of the provident funds, contributions have important tax and risk components and retirement benefits are consistently inadequate (i.e., replacement rates are very low). Moreover, labor force coverage under the schemes is generally low, and in most of the countries, with the possible exception of Hong Kong, safety nets are weak. This highlights the limitations of the current system for rich and poor alike.

Under these circumstances, the governments should reevaluate the systems and implement reforms along the following lines:

- Improve the investment function by easing restrictions and mandates that reduce the rate of return.
- Attempt to insulate managers from political pressures and adjust the governance structure to increase the representation of workers in order to better capture their preferences regarding the development of the investment portfolio.
- Acquire the necessary expertise in-house and/or decentralize management in a competitive environment while establishing appropriate regulatory mechanisms.
- Conduct an evaluation of benefits provision, giving increased emphasis to retirement needs. This implies that government should procure additional avenues of financing for other areas currently handled under mandatory savings, such as housing and health. It also means that safety nets deserve more attention in the structuring of a comprehensive package of old-age protection.
- Develop financial markets by ensuring that adequate regulation, supervision and tax treatment are in place. Also, the liberation of the investment regime should help accomplish this goal, and government can take a proactive stance in terms of creating the infrastructure necessary to furnish information useful in the provision of products such as annuities, for instance.

Several countries established traditional, OECD-style social security systems with defined benefits, public management and pay-as-you-go financing at different times (China, 1951, whose system was replaced during the Cultural Revolution; the Philippines, 1957; Korea, 1988; and Thailand, end-1998), but they face common problems with fiscal sustainability, benefit design and contribution link, and governance and investment of the reserve fund.

- All three existing systems are currently immature and in a strong financial position when measured in cash terms. Contributions from employers and employees are more than sufficient to cover expenditure since the number of pensioners is still low (Philippines), restricted for the time being to disabled and survivors (Korea), and/or non-existent since the first old-age benefits will be disbursed only in the future (Korea and Thailand). But the cash-flow status hides the true long-run costs of the promised pension benefits that workers expect in return for their contributions – the implicit pension debt (IPD). This debt already amounts to some 90% of GDP in the Philippines, 35% in Korea, and 10% in Thailand with system introduction. The IPD in these countries will grow to over 500%, 250% and 50%, respectively, by 2050. Current contribution rates will be insufficient to pay for benefits in the future, requiring either a rise in the contribution rate, a cut in the benefits, or mixture of both.
- The contributions and benefits of these systems are not closely linked. Current contributors pay too little for what they are going to receive as benefits, and future generations will have to pay more than what their benefits will be worth. However, even if contributions were immediately lifted to steady-state level, the benefit structure would provide little linkage with the individual contribution effort. This situation makes the contributions akin to a labor tax with negative implications for labor supply, the choice for formal/informal labor market participation, and retirement decisions.
- Korea and the Philippines must handle the investment of sizable reserve funds (8% and 5% of GDP respectively, see Table I.1), and Thailand will soon join them. The countries primarily manage these funds in-house and place them predominantly in non-marketable government securities and quasi-government projects such as public housing, with little allocation to liquid and market-priced assets. Furthermore, investment policies may conflict with the prudent person approach (e.g., Philippines' recent aggressive investment policy). As a result, the funds suffer from below-market rates of return and sometimes excessive risks, which implies higher future contribution rates than would otherwise be the case.

To address these pitfalls, the authorities should undertake the following steps:

- Reduce the benefit level under the unfunded system while quickly increasing the contribution rate to a steady-state level and introducing funded, defined-contribution provisions under decentralized and privately managed schemes. Such an approach would both reduce the fiscal problem and improve the contribution/benefit link under a mandated system.
- Improve the investment outcome of the reserve fund through strengthened governance, more rigorous guidelines to prevent risk concentration or conflicts of interest, investment

in liquid and market-priced assets only, and outsourcing of the asset management function to the private sector.

The move from central planning to more market-based structures poses generic problems for the social security systems in transition economies (China, Cambodia, Lao PDR, Mongolia, Myanmar and Vietnam). Additionally, there are important country-specific issues that require resolution (such as the unbearable pension debt of SOEs in China caused by their responsibility for benefit provision).

The generic problems of pension systems before and during transition result, inter alia, from:

- a comparatively higher level of labor force coverage due to public ownership of essentially all large enterprises, which rendered the enforcement of regulations easier;
- a more generous benefit level in a pension system that was invariably defined benefit, unfunded and publicly managed;
- contributions that were mostly or exclusively paid by the employer/public enterprise; and,
- a benefit structure that was not closely linked with the past contribution effort, paid little attention to work incentives and retirement decisions, had a low standard retirement age, and differentiated groups of workers according to their working conditions.

As a result of the economic transition process, several new difficulties arose, including:

- exploitation by enterprises and individuals of regulatory and administrative deficiencies, resulting in rising benefit take-up and lower contribution, thus amplifying arrears;
- often severe reduction in budgetary subsidies, which required adjustments in the nominal benefit level, and higher pension expenditure, reflecting the shift from indirect (lower price level) to direct income support;
- erosion of socialized enterprises' social functions and shift of corresponding expenditure to the budget because of privatization and the imposition of a hard budget constraint;
- introduction or distortion of early retirement and disability provisions as a policy response to emerging unemployment and government restructuring, which has exacerbated expenditure problems; and,
- development of a moral hazard problem in which enterprises perceived a vested interest and incentive to increase the retirement (or early retirement) benefits of their workers at the expense of the government or wider social pool.

In view of the multiplicity of reform requirements in transition economies, where administrative capacities and financial market institutions are deficient, the governments may want to consider the following options:

- Start out with a reform of the unfunded benefit structure, making it more compatible with a market-oriented environment. One approach involves the move toward a notional, defined contribution system (as in Mongolia, Latvia and Poland);

- Avoid burdening the system through the provision of early retirement windows for employees in public enterprises. They proved expensive and, in the end, ineffective in transition economies in central and eastern Europe because early retirees generally add a large unfunded liability to the system with only modest and short-term savings in salary costs;
- Prepare the shift toward funded provisions under private management through the reform of the financial market and the introduction of well-regulated (including adequate tax treatment) and supervised provisions on a voluntary basis.

3. Despite common problems and systemic issues in pension reform, the low level of coverage, predominance of retirement schemes still in evolution, and existence of funded provisions in many countries provide **ample opportunity for alternative system design or reform**. This may permit the region to avoid the pitfalls encountered by most retirement schemes in the OECD countries. Furthermore, it offers the countries a chance to maximize the contribution of the pension systems to economic and social development within specific socio-cultural contexts. The opportunities for the region involve “getting things right” by: (i) avoiding mistakes made by other countries in the world; (ii) being innovative; and, (iii) fostering financial markets.

Avoiding mistakes. The design and implementation of pension systems throughout the world has allowed for learning by error. Several main areas, detailed in Chapter 3, require the attention of policy makers in order to establish equitable and affordable retirement income provisions with minimal negative effects on the economy:

- The adoption of an integrated view on retirement income provisions requires a careful review of current provisions, their usefulness and consistency, and the possibility of introducing new ones:
  - severance payments/retirement allowances under funded individual accounts;
  - unemployment and health insurance provisions (and their integration with pre-funded pension schemes);
  - access to and financing of housing;
  - tax treatment of all retirement provisions; and,
  - access to actuarially fair annuities in real terms.
- The balance between individual and social equity and efficiency considerations is perhaps the most difficult aspect of pension system design and reform. Against the experience of industrialized countries, important lessons for consideration include:
  - averting unsustainably high mandated replacement rates;
  - closely linking benefits and contributions;
  - staying away from expensive special schemes for the self-employed and agricultural workers; and,
  - carefully designing and implementing safety-net type provisions for the poor elderly.



- The avoidance of fiscally unsustainable schemes is politically difficult yet critical, and the principal measures to accomplish this objective are:
  - keeping the scope of the unfunded scheme low;
  - insisting on actuarial assessments from an independent actuarial committee; and,
  - securing good governance and management of the reserve fund.

Being innovative. The need to rethink pension design provides the region with a unique opportunity to be innovative, to try new avenues aligned with or independent from the worldwide reassessment of pension systems and other social protection arrangements. Some of the avenues have already been explored, while others may lead into uncharted territories. Examples of tested and untested innovations include:

- Moving toward multipillar structure. Such a reform approach can minimize the political and economic risks while securing retirement income in an aging population. It consists of establishing a publicly mandated and managed, unfunded, defined benefit system supplemented by a privately managed and funded, defined contribution scheme, with additional retirement provisions on a voluntary basis.
- Enhancing coverage for the labor force. While the move toward a multipillar system with a strong funded pillar may induce more workers to join the official and covered labor market segment, it may not provide sufficient incentives for low-income workers, the self-employed and agricultural workers. Amplifying coverage for these groups may require some subvention or other measures. Efforts to increase coverage have to be carefully considered to ensure that they do not also invite moral hazards whereby compliance in the newly covered populations becomes limited to those groups that benefit from participation at the expense of the larger system.
- Reducing administrative costs of the privately managed pillar. This may take the form of a clearing house approach to lower collection, record keeping and communication costs; constraints on the choice of funded provisions to cut marketing costs; and group annuities to diminish adverse selection and transaction costs.
- Extending the social risk management approach beyond multipillar pension reform. This involves developing ways to take advantage of resilient and adaptable informal, family support systems in the region. Government policies regarding tax incentives, the legal structure, housing and the targeting of social assistance can complement and strengthen existing informal support. This is an area with large potential but little actual government experience.

Fostering financial markets. The introduction of funded pensions or the move from unfunded to multipillar pension structure in combination with financial market reform can create a win-win situation in which both the social and the financial sectors benefit. Socially, funded retirement arrangements should provide access to higher benefits, may better shield against political risk and fiscal unsustainability, and have less distortionary economic effects. Financially, they can contribute to the development of financial markets, making them more

liquid, deeper and more sophisticated, which in turn may contribute to economic growth.<sup>5</sup> To achieve these financial market effects, however, requires specific arrangements, including:

- A decentralized approach to pension fund management. This is a characteristic of the Latin American reform (that is largely being repeated in OECD countries, Central and Eastern Europe and Central Asia), employer-sponsored occupational pension plans and individual pension accounts, which are so dominant in OECD countries and not alien to developing countries.
- An appropriate governance, regulation and supervision structure. Rules have to ensure that the financial market institutions in charge of retirement assets act in the best interest of contributors, the true principal. There are sufficient examples of good practice (what to do) and bad practice (what to avoid).
- An adequate tax treatment providing contractual savings or long term savings instruments with consumption tax as opposed to income tax treatment. That is, to tax these savings instruments only once, either at the point of contributions or at the time of withdrawals, while exempting the funds' investment income from taxes.
- A strategic role for government. While the market should determine the creation of new instruments for retirement income provisions, there are a few important areas for government involvement. They include the effective regulation and oversight of banking, insurance, pension and provident funds and securities transactions; development of the government bond markets to provide a term structure of interest rates that serves as benchmark for the private sector; provision of price-indexed bonds, to allow for the development of price-index annuities, and up-to-date mortality tables.

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<sup>5</sup> Also, they can stimulate improvements in corporate governance practice, due to the considerable financial power they wield.

## **II. Challenges to Old-Age Income Security in the Region**

### **1. Demographic and Economic Shifts**

#### **(i) Population aging**

During the past 40 years the demographic characteristics of the East Asia and Pacific (EAP) region have changed significantly, setting the stage for the development of a much different population age structure in the next 40 years and beyond. As in all other regions (except Sub-Saharan Africa), the youth dependency ratio (population aged 0-14 to population aged 15 to 64) has been decreasing as a result of a reduction in the fertility rate. But the decline in this ratio in EAP from 70.7% in 1960 to projected 41% in 2000 was the most pronounced among all regions (Table II.1 and Figure II.1). However, the old-age dependency ratio (population aged 65 and above to population aged 15 to 64) showed only a slight increase over the same period: from 8.0% in 1960 to projected 9.4% in 2000.

Over the next 40 years, the population of the region is expected to age rapidly, albeit not in a uniform manner for all countries. The youth dependency ratio is projected to fall further, but at a lower rate, reaching 30.9% percent by 2040 (Table II.1 and Figure II.1). Meanwhile, the old-age dependency ratio is predicted to nearly triple by the same year, reaching 26.8%, a level only marginally below that of Europe and Central Asia (ECA) and well above those of Latin America and the Caribbean (LAC), South Asia (SA), Middle East and North Africa (MENA) and Sub-Saharan Africa (SSA). By 2030, the level will correspond to the one experienced by the rich OECD economies in 1995.

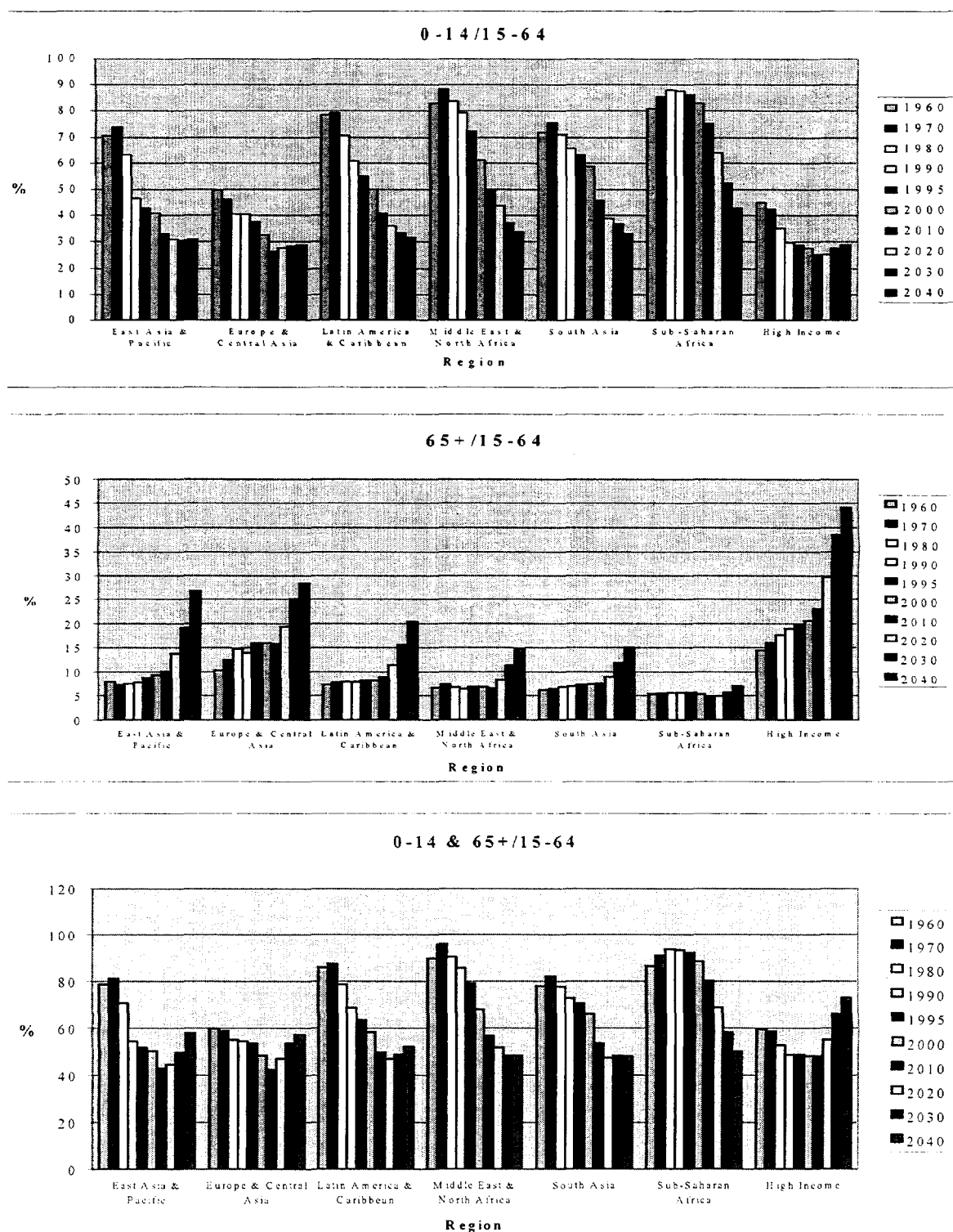
This projected aging is the result of declining fertility and rising life expectancy in all countries in the region. The total fertility rate (TFR)<sup>6</sup> has already fallen below the reproduction level in 5 countries (China, Hong Kong, Korea, Singapore and Thailand) (Table II.2). The common demographic projection of a TFR around reproduction level (i.e., 2.1) in 2040 is likely to overstate fertility for those countries already below this level as well as those still above it. This assumption indicates that projected population aging is underestimated, i.e., the rise in the old age dependency ratio is likely to be greater. Also, life expectancy at birth has increased in all countries since 1962, and is projected to rise further over the next 40 years, even though this growth will be less pronounced (Table II.3).

The demographic history and anticipated changes in fertility and life expectancy are not homogeneous for all countries in the region. As a result, the projected population growth varies among the countries, from above 1% in Lao PDR to negative in Hong Kong and Singapore by 2040 (Table II.4). Also, the old-age dependency ratios in 2040 – and their projected growth courses – differ markedly among the countries, ranging from 7.8% in Lao PDR to 57.2% in Hong Kong (Table II.5). The data suggest that aging is closely related to

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<sup>6</sup> The total fertility rate is the average number of children born per woman in childbearing age. A rate of around 2.1 is required for a stable population (i.e., one that is neither increasing nor decreasing in size).

**Figure II.1 Population Dependency Ratios for Indicated Age Groups, by Region**



current income level, with notable exceptions: China has an income level below but an aging level above the average; the reverse seems true for Malaysia.

Life expectancy at age 65 shows much less absolute variation among the countries of the region in comparison to the old-age dependency ratio and life expectancy at birth, both now and in the future (Table II.6). Currently, life expectancy at 65 ranges from 11.2 years to 16.2 years for men and 12.2 years to 19.7 years for women. The expected increase in the next 40 years is in the range of 2 to 4 years. Hence, pension payments starting at this age would have to last, on average, for around 15 years or more. If pensions were collected from age 60 onward, the average number of years of payment would be at least 19 years.

The projected demographic development in the region suggests three main conclusions:

- The region is aging rapidly, with major changes starting shortly after 2010. This aging is more pronounced than in most other regions in the world.<sup>7</sup>
- The aging is not uniform among the countries of the region. A few countries, notably China, may combine low income levels with an old and quickly aging population.
- The fall in the total dependency ratio (youth plus old-age) is only transitory, lasting until around 2010 and then surpassing the year-2000 level in 2030. Decomposing the total dependency ratio reveals that this is due to a shift in the relative weight of the two components: a rising old-age dependency ratio will gradually overtake a declining youth dependency ratio.

## **(ii) From agrarian to urban societies**

In 1960 essentially all countries in the region still had largely agrarian populations, with less than one-third of the total living in urban areas. Exceptions were the city-states of Singapore and Hong Kong, and Brunei (Table II.7). Major societal changes have occurred in the last 40 years, and the percentage of the urban population has increased. The rise was more dramatic in countries with market orientation and industrialization (from 27.7% in 1960 to over 80% in 1995 in Korea) and less pronounced in most countries that relied, or still rely, on planning mechanisms (from 14.7% in 1960 to merely 20% in 1995 in Vietnam).

During the next 30 years a continued and often dramatic move toward residence in urban areas is projected. By 2030, there will be only a few countries in which the share of urban population is expected to be less than 50% (Cambodia, Lao PDR, Myanmar, Papua New Guinea, Thailand and Vietnam). In many other countries it is expected to reach 70% or more (including Malaysia and the Philippines).

The projected urbanization will go hand in hand with an economic transformation, evident in changes in the contribution of the three economic sectors (agriculture, industry and services) to GDP and employment. In 1996, the agriculture sector still accounted for a significant

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<sup>7</sup> See Heller, 1997 for an excellent overview of the implications of aging in East Asia for fiscal policy.

share of GDP and an even higher share of employment in many EAP countries (Table II.8). In 9 of the 15 countries employees in agriculture accounted for a larger portion of the labor force than those in the other two sectors combined, reaching some 70% and above in China and other transition economies. However, with industrialization and market liberalization, the share of agricultural employment is likely to drop quickly.

Urbanization and the need for formal pension provisions are closely linked. In predominantly agrarian societies with large families, informal intergenerational income support for the elderly has been the historical norm. The cultural forces in Asian societies, emphasizing strong family values, have helped preserve this system to a large degree, even in the face of urbanization. However, with both rapid urbanization and fewer children, the informal, family-based old-age income support system comes under greater pressure, and the number of uncovered and vulnerable is bound to increase. Moreover, industrialization has reduced the family ties of the existing urban population as workers have become more geographically mobile. It is no coincidence that formalized retirement provisions in the region are most advanced in countries with a high urban population share.

### **(iii) Breaks in the economic growth path**

With some exceptions, countries in the region experienced an unprecedented positive economic growth path since the 1970s, or even earlier (Table II.9). Sustained annual growth rates of 6% and above over a period of three or more decades lifted the income levels of most countries well above those of countries in SSA, with which they shared similar profiles in the 1960s. Measured in PPP, by 1996 GDP per capita reached high-OECD country level in Singapore and Hong Kong, was similar to lower-income EU member countries in Korea, Malaysia and Thailand, and bypassed the US\$ 3,000 threshold in China, Indonesia, and the Philippines (Table I.1).

This income growth translated into an impressive and unprecedented reduction in poverty in the region and most countries in it (Table II.10). Within 20 years and in spite of continued population growth, the number of poor was halved, and the poverty head-count index fell from 58% in 1975 to 21% by 1995. However, progress in poverty reduction was uneven within and among countries, and the incidence of poverty still remained at 40% and above in Lao PDR, Mongolia and Vietnam.

The financial crisis that hit the region in mid-1997 interrupted this development, leading to significant reversals in income level growth and poverty reduction in the five crisis countries (Indonesia, Korea, Malaysia, the Philippines, and Thailand, plus Hong Kong more recently) and to lower than previous economic growth rates in essentially all others (Table II.9). Growth has impressively resumed in Korea and is projected to be substantial in many other countries of the region in 2000 (World Bank, 2000). However, it is uncertain if the region will succeed in returning to its pre-crisis high growth path. While international experience provides limited guidance, economic considerations suggest caution and only moderate optimism.

The impact of the crisis and moderate growth rates of perhaps 3% to 6% (which translate into lower per-capita growth rates) will likely produce the following effects:

- Many individuals will possess fewer assets for retirement, having used them during the crisis as a coping mechanism.
- Unemployment rates (and spells) may decrease in the future, but they will likely remain above pre-crisis levels.
- Income levels will increase, but at a much lower pace than in the past.
- Governments will leave the crisis with much higher internal and external debt. To service interest payments and to repay the debt, the primary budget deficit will have to be positive for many years to come, limiting the budgetary room for maneuver during this time (Asher and Heij, 1999; World Bank, 2000).
- Progress in poverty reduction via economic growth will be much slower, and government capacity to reduce the poverty gap will be reduced.
- Since the key variable in any social security system is economic growth, a slow-down will surely have implications for its financial health.

## **2. Extending Coverage for Old-Age Income Support**

### **(i) Low share of covered labor force under formal arrangements**

At present, labor force coverage under formal retirement income provision throughout the region is generally limited. For several countries – China, Hong Kong, Indonesia, the Philippines and Thailand – combined coverage under publicly mandated private sector and government employee schemes is less than 30% (Table II.11). However, coverage in Korea (51%), Malaysia (61%), Mongolia (52%) and Singapore (65%) is considerably higher. Since many mandated pension schemes for the private sector began only recently, worse coverage – as low as 10% – often applies to the current elderly population.

Almost invariably, public sector workers benefit from generous pension schemes unavailable to the rest of the population.<sup>8</sup> There are typically distinct schemes for workers in administration, the social sectors (education and health services) and the military and police force. In spite of the methodological difficulties inherent to cross-country comparisons of public sector employment (Kraay and Van Rijckeghem, 1995; Schiavo-Campo et.al., 1997a), available data indicate that the public sector (excluding state-owned enterprises)<sup>9</sup> comprises between 4% to 13% of the labor force in countries of the region (Schiavo-Campo et.al.,

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<sup>8</sup> To this extent, they normally are exempt from participation in the main publicly mandated scheme for private sector workers. However, this is changing in Brunei, Singapore and Thailand, where new provisions are requiring government workers to enter the national provident fund schemes.

<sup>9</sup> Due to the rapidly changing panorama regarding SOEs in the region, where continuing privatization is occurring in several countries, the data for these enterprises did not enter the calculations in Table II.11. However, in the past public and socialized enterprises have enjoyed mostly formal retirement provisions.

1997b). One exception is Brunei, where the government has traditionally been the main employer (of up to 50% of the labor force). Still, assuming full coverage of public sector schemes (i.e., 100%), in most cases they would apply to less than 10% of the total labor force (Table II.11).

For private sector workers, the situation differs greatly among the countries. Coverage under publicly mandated schemes (social-security style, provident fund or company-sponsored retirement allowances, in the case of Korea) is only emerging in Hong Kong and Thailand, where such schemes are just getting started, and in Vietnam, where there is widespread evasion of the regulation for participation of firms with 10 or more employees. On the other hand, Korea, Malaysia, Mongolia and Singapore have operated mandatory private sector schemes for years, and coverage rates, in terms of contributors/total labor force, are over 50%. Other countries fall somewhere in between: China (12.3%), Indonesia (10.6%) and the Philippines (21.0%).

The structure of the labor market relates directly to coverage rates under mandatory private sector schemes. In countries with large agricultural and urban informal sectors (China, Indonesia, the Philippines, etc.) coverage tends to be limited to the formal urban sector. In China, for example, there are currently no formal provisions for the rural population, which accounts for around 70% of the total.<sup>10</sup> Often, regulations require participation from only specific portions of the labor force, indicating possibilities for future expansion at least in principle. In Indonesia, contribution to the provident fund is compulsory for firms with at least ten employees or a monthly payroll of Rp 1 million. The provident fund in Malaysia is voluntary for domestic workers and the self-employed. Korea has extended coverage incrementally under its National Pension Scheme to the rural self-employed, farmers and fishermen, and only very recently to the urban self-employed and employees of small firms (less than five workers) – but not without substantial problems. However, even in countries with essentially full mandatory current coverage by law, the typical problems of evasion exist. This is especially true for the Philippines, whose social security style scheme covers nearly the entire private sector labor force in principle but only around 21% in practice.

Private occupational plans and other “voluntary” arrangements are mostly of limited importance and benefit mainly those already possessing relatively greater means of old-age income support. In most of the countries only large domestic and multinational firms sponsor these types of schemes as a means of attracting and/or rewarding high quality labor. Governments have encouraged the expansion of occupational schemes through tax incentives, such as concessional tax treatment for employer contribution, with mixed but mostly modest results.<sup>11</sup> Hong Kong provides an exceptional case in which the absence, until recently, of mandatory retirement provisions led to the establishment by businesses of more than 16,000 private pension schemes, covering around 30% of private sector employees.

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<sup>10</sup> China does have a voluntary pension scheme with very low benefits for rural workers, which covers around 8% of the total labor force.

<sup>11</sup> Despite the availability of favorable tax treatment since 1992, Indonesia has succeeded in stimulating extension in coverage to only 10% of formal sector workers.



This occurred largely due to shortages of skilled labor in Hong Kong's economy, which more than any other in the region is dominated by the service sector, thus accentuating the need to create a stimulus to draw and maintain qualified workers.

## **(ii) Changes in informal support (family and labor income)**

The generally low levels of coverage under formal, public income support arrangements indicate the relatively important role that informal care systems must play. These are still quite strong in the region and have a deep cultural and historical basis. Although the informal system for income security has many components,<sup>12</sup> the family support mechanism (mainly children's support for elderly parents) is the most significant. Children's support for elderly parents includes coresidence, performance of chores and difficult tasks, social contact, and financial or material transfers.

Currently, most elderly in the region receive substantial support of various types from their children. In the Philippines, Singapore, Taiwan ROC, Thailand and Vietnam parent-adult child coresidence rates in the mid-1990s were over 70% for parents age 60 or older with at least one adult child (Table II.12).<sup>13</sup> Similarly, more than two-thirds of all Malaysians and 62% of Indonesians age 60 or older lived with an adult child in the early and mid- 1990s, respectively (DaVanzo and Chan, 1994; Frankenberg et.al., 1999). More than 80% of non-coresident adult children in the Philippines, Singapore, Thailand and Vietnam had provided their elderly parents with either monetary or material support within the previous year. In most of these countries social contact between the elderly and their children on at least a monthly basis was at a rate above 70%.

Policy-makers have voiced concern regarding the effects of stressors – such as urbanization, education, longer life expectancy, and fertility reduction – on family support systems. Coresidence rates, for which some time-series information is available, appear to have fallen slightly in some countries but remain high overall (Table II.13), and in some cases it is difficult to identify trends (Philippines).<sup>14</sup> Also, quasi-coresidence, when a child lives adjacent or in close enough proximity to have daily contact, seems to have often compensated for declines in coresidence (Ofstedal et.al. 1999) and may reflect a tendency to purchase more privacy with rising incomes. Thus, even when a form of support changes, its function may remain intact. But large shifts in patterns of living arrangements in certain countries of the region may portend more pronounced declines in future coresidence in the others: the percentage of elderly living with any child fell from 78% (1984) to 49% (1994) in Korea and from 77% (1970) to 60% (1989) in Japan (in Knodel and Debavalya, 1997).

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<sup>12</sup> For example, informal support may involve local communities, clubs, patrons and religious and non-governmental organizations.

<sup>13</sup> Only a small fraction of the elderly did not have at least one adult child who represented a potential support provider (Table II.12).

<sup>14</sup> In fact, the suggestion of a trend from two data points – for some countries in the table – should be interpreted with caution. Moreover, differences in sampling and data collection methods among the surveys make the formulation of definitive conclusions more tenuous.

In addition to relying on their families, the elderly often continue to work (at least before they become too old to do so) in order to meet income needs.<sup>15</sup> For example, in a representative survey of Thai elderly, 36.2% of respondents considered their own or spouse's work as the main source of income, somewhat less than the portion who cited children (48.6%) (Knodel et.al., 1999). For those aged 60-69 years, labor income was actually even more important than income from children (cited as primary income source by 47.6% and 39.4% of the sample, respectively). Only 4.4% and 2.3% claimed that savings/interest and pension/retirement pay, respectively, comprised their main income. Similarly, the elderly in two regions of Vietnam cited work as a source of income (41.1% and 35.2%)<sup>16</sup> only slightly less frequently than children (42.4% and 66.0%) (Cuong et.al., 1999). These findings match earlier data for other countries of the region (China, Indonesia, Malaysia and the Philippines) in which high proportions of the elderly had to rely on continued work and/or family support (World Bank, 1994: 63). This may be less the case for certain countries, such as Singapore, but even there, coresidence rates are extremely high and the elderly find income from the public retirement scheme inadequate and family support vital (Chan, 1997; Chan and Cheung, 1997).

Clearly, informal support for the elderly in the region will continue to be important in the future as will the development of favorable and appropriate policies toward it. In this regard, the interaction and complementary fit between formal and informal mechanisms is of particular interest. For example, under conditions of household poverty, coresidence may not be able to ameliorate many of the conditions threatening the well being of the elderly. The recent East Asian crisis amplified this phenomenon, making readily apparent the limitations of informal support networks in the context of lacking or deficient safety nets (and formal retirement provisions).

### **(iii) Absence of formal social safety nets for the needy elderly**

With a few notable exceptions, the countries in the region do not provide categorical income support for their elderly.<sup>17</sup> Brunei has a demogrant pension that pays B\$ 150 in benefits (not adjusted in its level since 1984) to around 80% of people over the age of 60 (approximately 10,000 persons). There are both demogrant (Social Security Allowance) and means-tested arrangements (Comprehensive Social Security Assistance) in Hong Kong that reached some 750,000 elderly (12% of the total population) in 1997. Since the new Mandatory Provident Fund Schemes Ordinance does not contain provisions for the current elderly, the government made improvements to these safety net schemes in 1996-97.

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<sup>15</sup> Life-cycle household saving may be a further mechanism to prepare for old age, also for the poor. However, the formally available evidence is uncertain regarding the extent to which the lowest income group possesses this capacity. See Attanasio and Székely, 2000.

<sup>16</sup> Figures are for the Red River Delta and Ho Chi Minh City and environs, respectively.

<sup>17</sup> One fundamental assumption behind categorical (universal or demogrant) schemes is that the elderly as a group are automatically at risk of insufficient income (as a result of their age, i.e., reduced labor capacity, etc.). When financed from general consumption taxes, which are often regressive in developing countries, the approach may actually result in the redistribution of wealth from the poor to the rich.

Other countries rely only on means-tested or discretionary schemes. Korea has public assistance – in the form of Livelihood Protection, the Social Welfare Services Program and the non-contributory old age allowance – providing modest cash and in-kind transfers. However, the programs bear considerable stigma, and only 265,000 persons (less than 10% of the population above 65) received benefits in 1997 at a cost of less than 0.1% of GDP. Thailand's Department of Public Welfare operates a program, which covered 318,000 persons in 1997, that pays monthly subsistence allowances of 200 Baht (currently worth around US\$ 5) to indigent elderly in rural areas. Such schemes in some countries suffer from restricted access, mostly opaque regulations (often handled by local authorities in a non-transparent manner), and limited financial resources.

Traditional safety nets in transition economies have generally been non-existent because the state attempted to account for the complete welfare of workers through employment in state enterprises in urban areas or collective agriculture in rural areas and provision of free or subsidized goods and services. In any case, inefficiencies left many people outside these systems. With market reforms, there has been some effort to establish or expand safety nets. In 1993 Vietnam created a scheme for the distribution of land formerly held by cooperatives in which the elderly received 50-80% of the land allocated to the non-elderly. This served as an important welfare benefit since the able elderly, their families or tenants could farm the land, which was capable of producing at the subsistence level. The number of social assistance recipients in Mongolia actually declined from 384,400 in 1994 to 138,000 in 1996 – while 800,000 persons (36% of the population) are poor. Many of the beneficiaries are elderly, and with its upcoming pension reform, the government may want to attempt better targeting of the indigent elderly. Local government in China might be encouraged to follow suit in the absence of welfare provisions throughout most of the country.

The absence of categorical income support for the needy elderly, i.e. social assistance-type pensions, with relaxed means-testing procedures for individuals above a certain age, reflects the deeply ingrained political resistance in the region against handouts. The general societal perception is that they are inconsistent with prevailing values and threaten the family and its informal support system. The recent financial crisis, however, demonstrated that the informal, family-based system and social cohesion are in jeopardy without appropriate income support for the needy. Such considerations gain importance in light of globalization, more variable income and employment situations, and a persistent high level of income inequality in most countries of the region (reflected in a Gini of 0.4 to 0.55). With lower actual and expected economic growth rates, the tolerance for high income-inequality and a lack of income support for the needy is likely to decrease along with social cohesion.

### **3. Addressing Systemic Issues**

The countries in the region exhibit a diversity of old-age income support systems, differing inter alia in benefit type, funding mechanism, total and sectoral coverage, importance of

occupation schemes, and the date of introduction and maturity. Table II.14 highlights the diversity of schemes within and among countries.

Nevertheless these old-age income schemes share general problems, and sub-sets of countries exhibit strong similarities. This section discusses the general issues in the provision of old-age income support before addressing common issues in sub-sets of countries. Regarding the latter, the countries are classified in three main groups: **National Provident Fund Systems** (Brunei, Hong Kong, Indonesia, Malaysia, Papua New Guinea and Singapore); **Social Security Type Systems in Market Economies** (Korea, Philippines and Thailand); and **Social Security Type Systems in Transition Economies** (China, Lao PDR, Cambodia, Myanmar, Mongolia and Vietnam).

### **(i) General issues**

The main general issues shared by most, if not all countries in the region are the following:

Lack of an integrated view on old-age income support. As in other parts of the world, income support systems for the elderly in EAP countries emerged in a gradual manner, incorporating new elements without questioning the existing ones since different ministries or organizations are likely to administer them. As a result, severance payments/retirement allowances continued to exist after the introduction of public pensions; tax privileges are granted to some but not all retirement income schemes; some government institutions address retirement income merely as a financial market issue and others merely from a social policy perspective; and the ministry of finance and the ministry of labor and/or social affairs often handle different schemes without communicating with each other.

What is missing in essentially all countries is an approach to old-age income support that moves beyond parochial interests and addresses the main social and economic, fiscal and regulatory, micro- and macroeconomic questions in a comprehensive manner. An inter-ministerial task force, a planning institution with comprehensive participation, or a think-tank located within the Prime-Minister's or Presidential office could successfully incorporate this approach.

Dealing with civil servant/public enterprise pensions. In most countries public sector employees enjoy comparatively generous pensions, if measured by their own low contribution rate to the system, favorable eligibility criteria (such as reduced retirement age or required service record for full pension) and the promised full-service replacement rate that often exceeds 75%.<sup>18</sup> Until recently, all benefits were of defined type with no or little funding.

Such a pension structure implies high current, but mostly high future public expenditure, impedes the mobility between the public and private sectors (due to an employee's desire to

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<sup>18</sup> However, sometimes full vesting does not occur until after a considerable period of service.

acquire and maintain the relatively more attractive public pension benefits), and strengthens resistance to downsizing or privatization (due to the threat to promised benefits). These factors underscore the urgency of reforming and synchronizing public sector schemes with existing or envisaged private sector schemes. Some countries (such as Brunei, Singapore and Thailand) have started to address these issues, but much more needs to be done.

Generous pensions in the public sector are often, and not without reason, seen as a means of making up for the lower wages compared to the private sector, and on a lifetime basis, total compensation may not be too different. As a result, and in line with international experience, aligning public and private sector pension arrangements requires a simultaneous reform of the public wage schedule – although at the lower levels, public sector wages are most often not too divergent from those of the private sector or may even exceed them.

Creating an efficient administration. The effectiveness and financial sustainability of a pension system depends to a large degree on the efficiency of its administration, which involves its capacity to (i) collect contributions in a timely, non-intrusive, but cost-effective manner, (ii) record relevant information over a long period of time based on modern information technology (e.g., contribution base, contributions, withdrawals – including pre-retirement withdrawals, family characteristics, etc.); (iii) manage accumulated reserves to the benefit of the contributor (i.e., maximizing risk-adjusted return); (iv) communicate with contributor and beneficiary in a client-oriented manner; (v) disburse retirement benefits in a secure and efficient manner; (vi) detect, control and sanction misrepresentation and fraud; (vii) facilitate portability; and (viii) provide a vehicle for dispute resolution.

While some progress has been made, all pension administrations in the region are far from best practice in at least one of these functions. Failure in even one function impinges on the overall credibility of the scheme and results in higher evasion/lower coverage, which eventually reduces the scope and size of old-age income provided.

Increasing the retirement age and establishing consistency between men and women. The retirement age in the region is very low, never exceeding 60 years of age, except in the newly introduced scheme in Hong Kong.<sup>19</sup> In various countries it is 55 years (Brunei, Indonesia, Malaysia and Thailand), with even lower ages under early retirement provisions. Furthermore, retirement age for women is lower than that for men in several countries, despite their increased labor force participation and longer life expectancy. Justification for such low retirement ages lies in the lower life expectancy in the region, but the argument does not hold:

- While the average life expectancy at birth in the region is still low when compared to high-income countries, it differs widely among the countries. It is only very low in countries with few formalized retirement income provisions (such as Cambodia and Lao

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<sup>19</sup> Note that in countries such as Singapore and Malaysia, the age at which one can withdraw from the National Provident Fund does not correspond with age of retirement.

PDR). In Brunei, Hong Kong, Korea, Malaysia and Singapore, it is not too different from the high-income countries. Overall, it is expected to rise quickly throughout the region over the next decades (Table II.4).

- Regarding financial sustainability of pension systems, the important indicator is life expectancy at retirement age, not birth. Table II.5 indicates that life expectancy at age 65 is well above 12 years in most countries, reaching almost 20 in some (and higher for women). Hence, a retirement at age 60 or even 55 (or under early retirement) leads to the payment of a pension benefit of 15 plus or even 20 plus years, frequently based on fewer years of contribution. Such a scheme is only financially sustainable either if the contribution rates are very high or the benefit levels very low.

Providing annuities and indexation. Only a few countries in the region provide annuities at retirement or request that the accumulated funds be transformed into an annuity.<sup>20</sup> Even fewer countries provide or demand price indexation once an annuity becomes available (Table II.15). Both gaps are at odds with the objectives of retirement income security.

The main rationale for publicly provided or mandated old-age income security is the risk of outliving accumulated resources due to (i) insufficient individual saving for retirement and (ii) the uncertainty of death. Avoidance of the first risk leads to mandatory participation under either unfunded or funded arrangements. To avoid the second risk requires not only annuities in nominal terms under an appropriate pooling mechanism, but also an indexation mechanism ensuring the maintenance of purchasing power. While price indexation under an unfunded system can easily be provided, because the current contributors or the government can insure against the inflation risk through higher contributions or budgetary transfers, price indexation under a funded scheme requires the provision of indexed bonds and/or international investment of accumulated funds.

Establishing consistency in tax treatment. Retirement income schemes throughout the region are subject to uneven application of the two main alternatives for taxation treatment (income-type or consumption-type). This holds implications in terms of the efficiency of resource allocation and equity.

A few countries apply the consumption-type tax treatment to mandated pension schemes (such as Korea) but different treatment to other voluntary retirement savings instruments (Table II.15). Most other countries (such as China, Hong Kong, Malaysia, Philippines, Singapore and Thailand) do not tax mandated schemes but do tax voluntary savings. Exempting pension schemes from taxation is grossly unfair to other citizens, in particular in countries with a low coverage rate. It is the wealthier citizens that often contribute and benefit from a formal pension system while all citizen are subject to taxes, rendering a tax free pension system effectively regressive. The result of the application of inconsistent tax

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<sup>20</sup> Note that for funded schemes, the benefit should be in line with the accumulation at retirement. In other words, the present value of the benefit provided in retirement (and utilizing the best available mortality projections) should be the same as the account accumulation.

systems to different retirement schemes is often savings substitutions with negative effects on resource allocation.

Coordinating old-age benefits for migrants. Some countries in the region are important net providers of migrant workers (such as the Philippines, Thailand, Myanmar and Vietnam), and others are net importers (such as Brunei, Malaysia and Singapore). In the labor importing countries, migrants are often exempt from participation in the pension system or encounter difficulty in the transfer of the accumulated assets or pension rights once they leave the host country. This creates a current and future burden on their countries of origin, which will have to provide some basic income support once the returned migrant ages.

Funded provisions or arrangements between the countries regarding transfer of accumulated rights (as exist in many other parts of the world) would provide fuller access of migrant workers to mandated pension schemes.

## **(ii) National Provident Fund Systems**

Several countries in the region have emphasized mandatory savings arrangements for old-age support and opted for provident fund systems at the national level. Most of these are under public management (Brunei, Malaysia, Papua New Guinea and Singapore), with the exceptions of Indonesia, whose fund has a private management structure but in practice appears quasi-public, and Hong Kong, which has legislated for decentralized, private management starting in 2000. The provident fund model has the advantages of full funding and, in principle, provides a strong benefit-contribution link, thereby avoiding the risks of financial unsustainability and distortions in pay-as-you-go social insurance schemes arising from benefit formula structure and redistribution. However, low rates of return on investments imply an implicit tax on contributions and future low benefits, and in a context of reduced labor force coverage and weak or absent safety nets, the weaknesses of the overall approach to old-age income security become more evident.

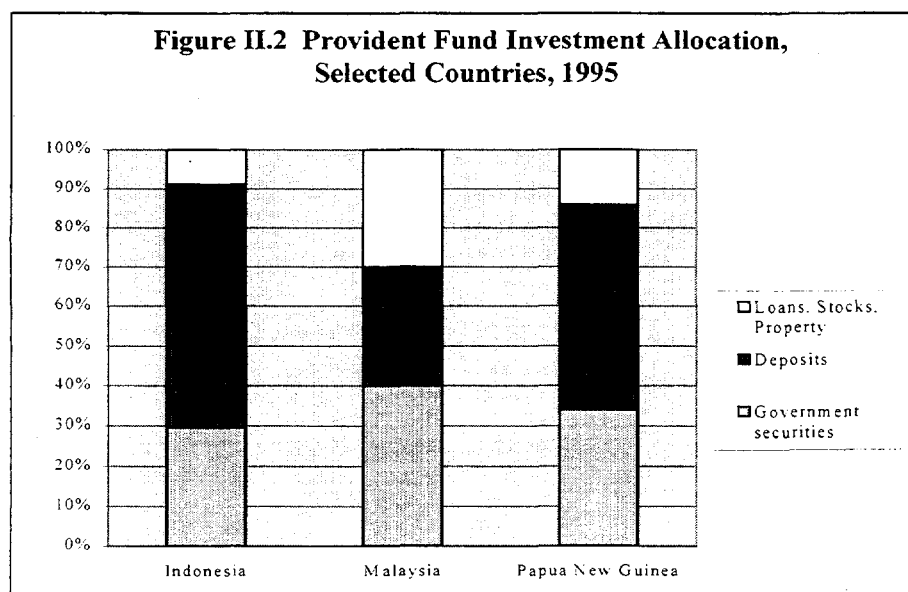
Despite the differences among the countries and their old-age protection systems, the centralized nature of most of the provident funds<sup>21</sup> has given rise to a characteristic set of problems, including low return on investment of member balances, restricted choice for the individual in terms of investment and use of savings, lack of contribution to financial market development, and inadequate benefits and benefit provision (i.e., lump-sum provisions without options for annuities). This indicates that several issues are of primary importance on the reform agenda: investment policy and performance; governance and management; and, development of market institutions and tools.

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<sup>21</sup> This section concentrates mainly on the mature provident fund systems (i.e., Indonesia, Malaysia and Singapore) from which members collect benefits upon retirement after a considerable period of contribution. The funds in some countries started operating relatively recently (Brunei, 1993; Papua New Guinea, 1980; and Hong Kong, 2000).

**Investment Policy and Performance.** The countries generally limit the investment of provident fund resources by specifying the types of allowable investment tools and amounts that can be allocated to them, ostensibly to address risk concerns but also in practice to support other domestic policy goals. For example, Malaysia's Employee Provident Fund (EPF) Act specified that 70% of total investments had to be in Malaysian Government Securities. In Singapore, member balances with the Central Provident Fund (CPF) Board must be invested in government bonds. All countries have traditionally proscribed investment in foreign assets in an attempt to keep scarce investment funds at home, which limits country-risk diversification. However, Malaysia recently granted permission to the EPF to invest offshore, and the selection of external fund managers has begun. Singapore allows members to invest a small portion of CPF savings, the pre-retirement withdrawal funds, in approved mutual funds operating under rules that permit substantial direction of resources overseas. A 1997 legislative change allowed the main public scheme in the Philippines to invest up to 7.5% abroad, but this has still not occurred (Iglesias and Palacios, 2000). The most liberal regime exists in Hong Kong, with its Mandatory Provident Fund (MPF) scheme starting operation in 2000. In this system, individual investment management companies (trustees) approved by the MPF Authority offer products based on a wide (unrestricted) menu of investment options.

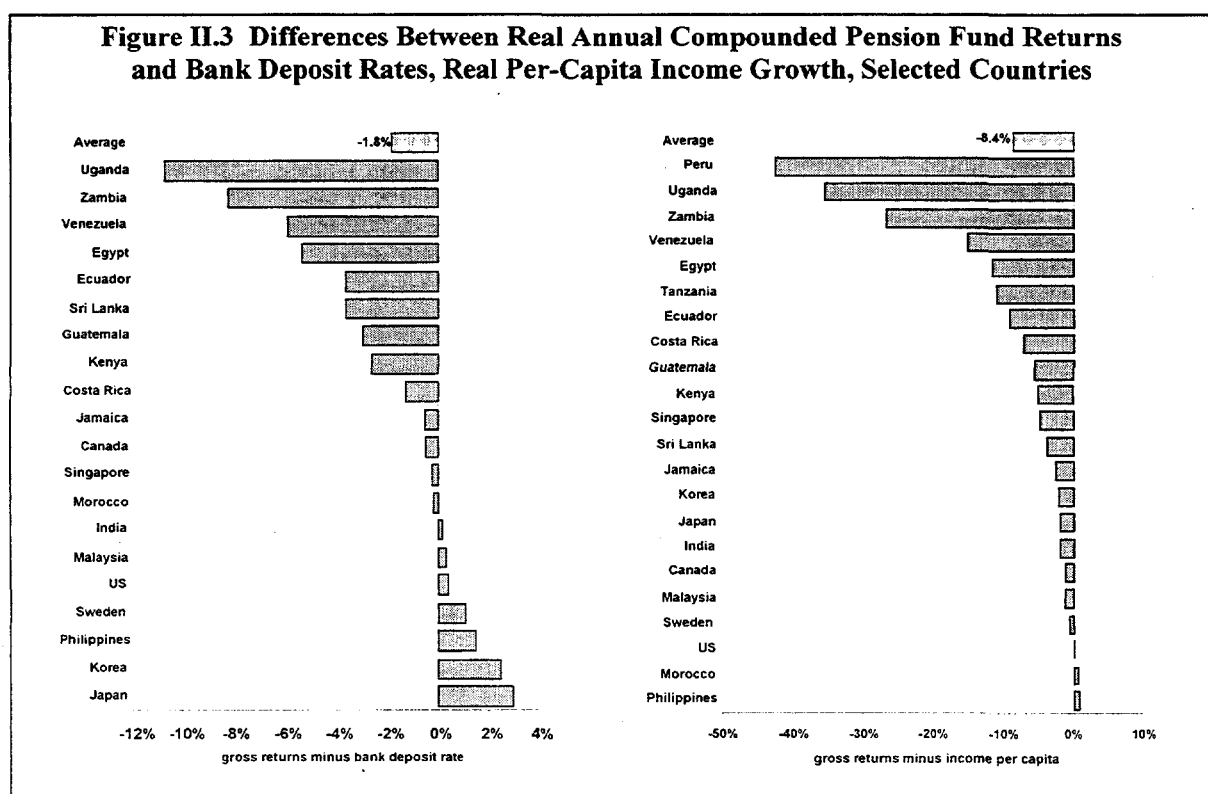
Overall, the regulations on investment of provident fund assets and, in certain cases, paucity of avenues of diversification in-country have led to portfolios that are weighted heavily toward public sector products and bank deposits, partly at the expense of high-performance equities. In Singapore, roughly 85-90% of CPF funds are in government bonds. Brunei, which does not have a stock market, has most of its funds in fixed deposits with a few locally operating banks. Comparable data are available for other countries and confirm the general trend (Figure II.2).



Source: Annex B



The structure of the investment portfolios has normally resulted in low rates of return. In 1994 real return on Indonesia's fund was zero. Between 1983 and 1997 a simple average of the real rate of return to members of Singapore's CPF equaled 1.5%. Malaysia demonstrated somewhat better performance, registering 3.44% real return from 1961 through 1997 (simple average of annual values). This improved to 4.60% for the more recent period of 1987-97. However, in comparison to alternatives, such as equities (5.61% over the 1971-91 period) these investments appear somewhat unsatisfactory. This is true not only in the case of many provident fund systems of the region but also with regard to reserve funds in general throughout the world. Figure II.3 compares the rate of return with bank deposits – the lowest financial market rate of return – and with per-capita income growth rates – the implicit rate of return of an unfunded system. The first comparison signals that provident funds in Malaysia and Singapore have done only marginally better and slightly worse, respectively, than bank deposits, and the same result is likely to hold for Brunei and Indonesia. The second comparison with the per-capita income growth rate suggests that contributors may have been better off in a pay-as-you-go scheme.



Source: Iglesias and Palacios, 2000. See source for calculations and time periods used for countries.

**Governance and Management.** In addition to rigid policy, some of the poor results on investment owe to fund governance and management practices. Typically, a board with representation from different relevant segments of society (i.e., government, employers,

employees, financial sector, etc.) sets the parameters for fund operation and an investment committee or panel handles the routine technical decisions and procedures. This would seemingly allow for the expression of employee interests (i.e., maximization of return), but the exact composition and method of selection of the board and committee members results in the overrepresentation of government. For example, although Malaysia's EPF Board consists of 20 members with fairly proportional representation among various groups (5 representatives each from government, employers and employees; 3 professionals; and EPF's Executive Chairman and Deputy Chairman), the Minister of Finance appoints all of them, thus essentially creating a mechanism of government control. Singapore and Brunei have similar arrangements, in which the Minister of Labor and his Majesty the Sultan, respectively, choose the Board. The end result is that the fund resources are captive to the public sector and its budgetary and policy needs.

There are many indications that governments have taken advantage of this situation and conditions of non-transparency to attend to policy objectives that do not match the funds' purpose of old-age income protection and adversely affect the efficiency of translating savings into investments. The Malaysian case provides several examples in which policy goals and political pressures have influenced investment action:

- government use of funds to assist in the recapitalization of distressed banks and acquire equity in debt-laden enterprises of national interest;
- development of plans to finance a national economic recovery package domestically, with partial financing from the provident and other pension funds;
- possible support to selected stocks on the Kuala Lumpur Stock Exchange with provident fund resources during the initial phase of the economic crisis in 1997;
- amendment of the EPF Act to allow the EPF to finance housing construction through the public housing authority (supply side); and,
- the participation of the EPF in government initiated and directed privatization and infrastructure projects.

Similarly, it appears that the Indonesian government used provident fund assets to support the exchange value of its currency, ease the passage of bills in Parliament and finance part of the Indonesian Bank Restructuring Agency's takeover of most of the 215 banks operating there shortly before the crisis.

Quite often government premises its investment mandates on social and economic objectives other than the task of providing pensions. It justifies this practice with the argument that it will improve the lives of scheme members directly (social investment) or indirectly through externalities of projects that might otherwise remain unfunded (economically targeted investment). Despite the earlier examples of investments that may contribute to national development, the most common non-pension objective is housing provision. In Singapore, in most years over half of all withdrawals have been for housing, in order to provide financing from the demand side. An important secondary objective relates to the financing of health care. The final result of these early withdrawals is reduced and frequently insufficient

resources at retirement, which indicates the need for careful benefits planning and increased attention to the rate of return earned on balances not being used for the purpose of facilitating the implementation of social and economic policy.

At times, the use of pension funds is less transparent and may not bring any recognizable benefits to members. The practice of setting rates of return to member accounts administratively while receiving higher return on invested funds has resulted in an implicit tax in Singapore. Since 1986 the CPF Board has paid interest on member balances equal to the simple average of 12-month deposit and month-end savings rates of the four major local banks. Meanwhile, it appears that the government (through the Singapore Government Investment Corporation and other holding companies) invests the funds, predominantly abroad, in a context of limited transparency and public accountability. Although no information is available regarding the portfolio composition, investment criteria and performance, an estimate – based on an average return of 5.5% (over the last 10 years according to a statement by the Finance Minister to Parliament), the nominal rate of 3.5% in 1997 and average member balance that year of S\$ 69.3 billion – is that the implicit tax amounted to S\$ 1,039.5 million, or 6.5% of contributions. A similar situation seems to prevail in Brunei, where most investments are in fixed deposits in banks earning around 3% interest while member accounts earned only 1.5% in 1993 and 1994. It is not clear whether the uncredited balances are kept in reserve, returned to the government or used in other unspecified ways.

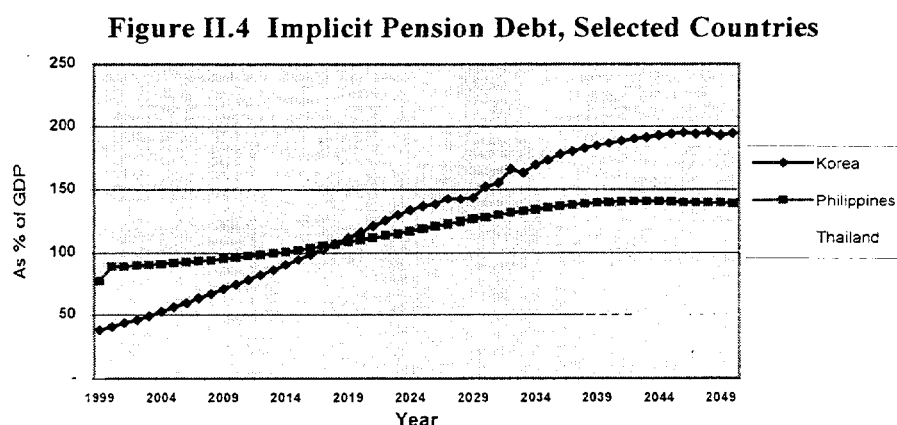
Development of Market Institutions and Tools. In spite of the substantial size of provident fund savings in countries of the region (e.g., 54.5% and 55.7% of GDP in Malaysia and Singapore, respectively, in 1997), they have contributed little to the development of the financial sector, capital markets and their corollary investment instruments. This is primarily a consequence of the investment policies and governance practices reviewed earlier, in which government monopolizes fund management and confines resources in a conservative investment regime. Centralized fund management has not encouraged the growth of a competitive fund management industry, and in fact, the provident funds' in-house management capacity and expertise is frequently inferior to market standards.

An example of the deficiencies of market instruments is the lack in all countries of protection against longevity and inflation risks through the provision of appropriately priced annuities. The lump-sum benefit negates the main rationale of mandatory savings that individuals are too shortsighted to save for old age because it allows for quick and unproductive spending. Furthermore, the absence of annuities helps perpetuate a vicious cycle in which there is less pressure on government to issue inflation-indexed bonds, which in turn hinders the creation of bond markets and a sovereign yield curve reflecting varied maturity periods. Therefore, there is no reference for the pricing of other bonds and insurance companies find it difficult to offer their annuities at a reasonable cost.

### (iii) Social Security Type Systems in market economies

Korea, the Philippines and Thailand adopted publicly mandated and unfunded schemes to provide old-age retirement income for the eligible labor force. Some form of limited social assistance for the destitute elderly is also available. Even though these three systems came into effect at different times (1957 in the Philippines, 1988 in Korea and 1999 in Thailand), they all have to overcome difficulties in three basic areas (fiscal sustainability, benefits design and contribution link, and reserve fund governance and investment).

**Fiscal Sustainability.** The old-age security plans in all three countries are currently immature – with an effective system dependency ratio of around 12.6 for both Korea and the Philippines<sup>22</sup> – and in a strong financial position. Contributions from the insured and their employers finance the systems without the need for transfers of government revenue – but in Thailand the government does contribute, although at a reduced rate (1%) in comparison to employers and employees (3% each as of 2001). However, this favorable short-term financial status (measured in terms of excess current contribution income)<sup>23</sup> hides the true long-run cost of the promised pension benefits that workers expect in return for paying contributions (whose present value is the implicit public pension debt [IPD]). Although the IPD varies by country and depends on an array of factors (including coverage, age distribution of workers, level of benefits, and the discount rate used in determining present value), simulations using dynamic, country-specific assumptions show that in all three countries, the IPD builds up as the system matures and the population ages (Figure II.4). The IPD, already some 80% of GDP in the Philippines and almost 40% of GDP in Korea, will increase to around 140% and 195%, respectively, by 2050.



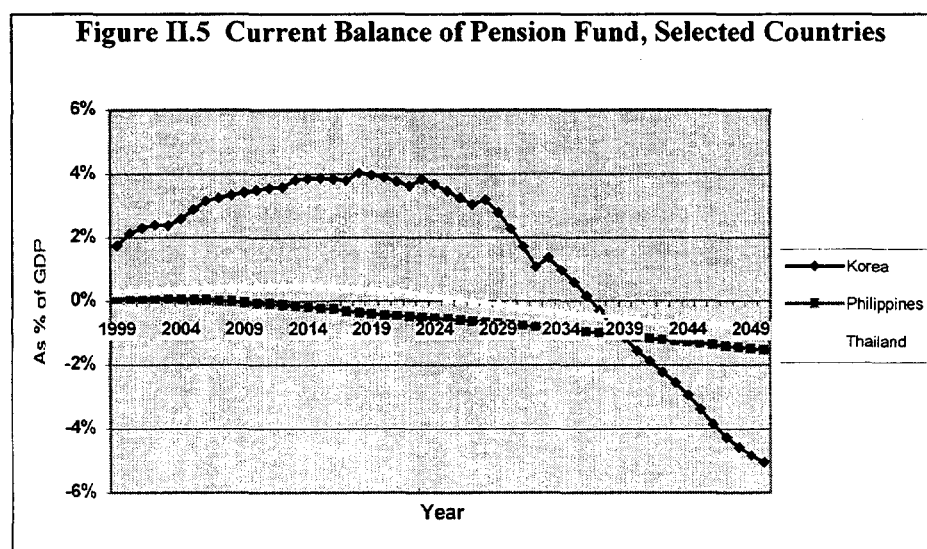
Source: PROST calculations, The World Bank

<sup>22</sup> The system dependency ratio is the portion of total beneficiaries relative to effective contributors. Thailand's old-age pension insurance scheme became effective in December 1998, but the first year of benefit payment will not fall due until 2015.

<sup>23</sup> Expressed as percentage of GDP, this is estimated to be 1.3% for Korea, 0.3% for Thailand, and 0.1% for the Philippines.

Due to the inherent imbalance in the long-term relationship between benefits and contributions, the pension systems in these countries will eventually go bankrupt when the current value of payouts surpasses that of contributions and after the exhaustion of any accumulated reserves. In order to avoid this situation, countries must adjust the parameters of system design (i.e., age of eligibility for benefits, contribution rates, benefit levels, etc.) or arrange for alternative financing mechanisms (i.e., budget transfers).

In Korea's case, the surplus in the current balance will remain until 2037 (see Figure II.5). By that time, the demand for benefit payments will exceed the contribution revenue. Still, the reserve fund, built up through excess current contribution and investment income, should bridge the gap for an additional 13 years, until 2050 (Figure II.6). If the provisions of the system are not reformed (i.e., by continuing to provide a replacement rate of 60% from age 60 onward after 40 years of contribution), it is projected that the equilibrium contribution rate<sup>24</sup> will amount to 20%, clearly demonstrating the unsustainability of the current statutory rate of 9%.

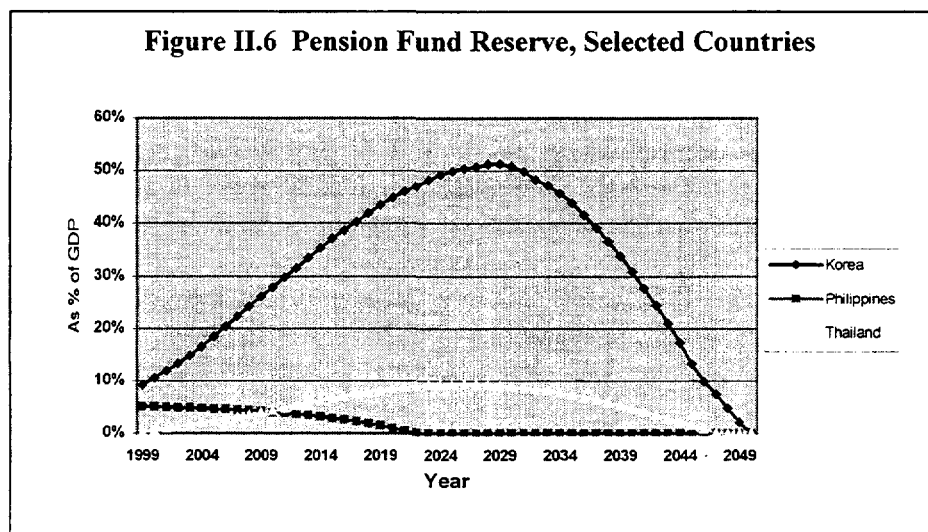


Source: PROST calculations, The World Bank

The outlook for the Philippines' system is slightly worse. The first year of negative current balance will likely occur around year 2010 (Figure II.5), while exhaustion of the reserve fund is projected for 2022. The equilibrium contribution rate required to support the current system, which provides an average replacement rate of 40% from age 60 after 20 years of contributions and generous minimum benefits, is estimated to be around 15%, more than double the current statutory rate of 6.4%.

<sup>24</sup> This is the rate required for the sum of the net present value of current balances over the projection duration to equal zero.

After lengthy debate, Thailand implemented an old-age pension system in early 1999. While the final benefit provisions have been scaled down (from a replacement rate of 20% to 15%, starting at age 55 after 15 years of contributions), the system is still not financially sustainable in the long run. The equilibrium contribution rate is estimated at 13%, which is far above the rates of the current contribution schedule: 2% in 1998, 4% in 1999, and 6% in 2000 and beyond. The current balance will turn negative in 2027, 29 years after the introduction of the scheme, and the fund reserve will be completely depleted by 2048.



Source: PROST calculations, The World Bank

In addition to the public social security schemes, Korea and the Philippines operate defined benefit pension plans for their government employees.<sup>25</sup> While official projections are generally unavailable or unreliable, these schemes possess an even more severe pattern of fiscal imbalance than the public social security programs. This is a result of the greater relative age of the government retirement schemes, which are nearing maturation, their more generous benefit provisions and lower contribution rates. In all cases, budget subsidies help finance these schemes.

Benefit Structure and Contribution Link. If benefits and contributions in a mandatory pension scheme are not linked in an actuarially fair manner or if workers perceive that they are not receiving a fair rate of return from the system and potentially high risk, they are more likely to attempt evasion by not paying. Similarly, without an actuarially fair linkage between contributions and benefits, some workers or retirees may try to exaggerate their participation so as to receive disproportionate benefits. This brings into question design

<sup>25</sup> Thailand recently introduced a defined contribution fund (replacing a previous defined benefit program) for government officials (mandatory for those who joined on or after March 1997 and voluntary for those already in service prior to March 1997). The financing of the residual defined benefit program remains on a pay-as-you-go basis through the general budget.

features of these schemes that privilege the current generation at the expense of future ones and the rich at the expense of the poor.

Under a pay-as-you-go, unfunded scheme, there will always be intergenerational resource transfer, whereby lifetime benefits and costs for successive generations of retirees in a country will differ. This is particularly pronounced during the first few decades after the scheme's establishment. In all cases, earlier generations will fare better than later ones, regardless of their earnings level. In the long run, such intergenerational transfer implies increased tax burdens or reduced pension promises for future working generations. This phenomenon is clearly evident in all three countries in the required contribution rate (RCR) and the affordable replacement rate (ARR) necessary to keep the systems in balance over the next 50 years: the RCR would have to rise from 9% to 24% in Korea, 8.4% to 20% in the Philippines, and 6% to 15% in Thailand, or alternatively, the ARR would have to decline from 70% to 13%, 40% to 10% and 15% to 6%, respectively.

In addition to this intergenerational redistribution, another source of inequity in pension systems is earnings-related benefit formulas. Unless carefully designed, these may lead to perverse redistribution from the poor to the rich. This is a consequence of upper-income individuals' delayed entrance into the labor force (resulting in relatively less contribution), steeper age-earnings profiles (equating to higher pension entitlements) and greater longevity (thereby collecting more benefits). The creation of closer linkage between benefits and contributions can help mitigate the first two of these pitfalls (i.e., shorter contributory service and steeper age-earning profiles).

All three countries either currently experience redistributive distortions that stimulate evasion or will face them shortly. In both the Philippines and Thailand, the benefit formulas emphasize the last 60 months of the individual's earnings – a process that yields disproportionately high benefits to workers with steep age-earnings profiles. On the other hand, the Philippines' system also provides a minimum fixed benefit to retiring workers who have contributed at least 120 months, which is one way to ensure minimum support for the lifetime poor. However, the combined effect of these characteristics has led to strategic manipulation by members (through contributing just enough to qualify for the minimum pension), resulting in high evasion rates (in excess of 60% over the last few years). In the case of Korea, whose benefit formula weighs equally the lifetime average wage of the individual and the average economy wage<sup>26</sup> throughout his or her career, evasion rates are relatively low (less than 10%). However, the country is unable to achieve the desired redistributive effects (from rich to poor) through the current pension system and must rely instead on social assistance programs to accomplish this. At this point, there is little evidence on the level of evasion in Thailand, but the implementation of a final-earnings related formula will make it an issue sooner or later.

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<sup>26</sup> Prior to December 1998 the Korea pension formula recognized only 75% of a contributor's own wage level.

Governance and Investment of Reserve Funds. Korea and the Philippines must deal with the management of sizeable reserve funds (8% and 5% of GDP respectively), and Thailand will soon confront the same issue (Figure II.6). The countries primarily manage these funds in-house and invest them predominantly in government securities and quasi-government projects such as public housing, with little allocation to liquid, market-priced assets. The end result is that the funds suffer from below market rates of return, implying higher future contribution rates.

Even though investment committees or fund operation committees exist, they are not insulated from political pressures. For example, in the case of Korea, the Committee of National Pension Fund Operation (CNPF) regulates and supervises the fund. It is supposedly a tripartite entity, but the chair and co-chair are the Minister of Finance and Economy and the Minister of Health and Welfare, respectively. Furthermore, 10 of the 15 committee members are from the government, creating a situation in which government essentially controls fund management. Moreover, the Public Fund Management Act, which allowed managers to invest a small portion of the NPS excess cash flow in market-based securities, automatically earmarked two-thirds of surpluses to finance other government activities that generally earn below market rates of return – the rate of return on NPS investments has been roughly the same as the rate on one-year treasury bills. Another part of the portfolio consists of non-traded government securities (in the form of promissory notes) and membership loans that also give low returns.

In an attempt to improve transparency and efficiency of pension fund management, Korea has decided to take the following actions: (i) phase out the direct credits over 10 years while introducing the purchase of marketable government bonds,<sup>27</sup> (ii) expand the asset management committee from 15 to 20 and include more non-government members, and (iii) strengthen the investment department to determine appropriate benchmarks for risk and return as well as perform ongoing monitoring of external fund managers. While these measures restrict the availability of cheap resources for the government and limit political maneuvering, the only assurance that the fund will earn competitive market returns comes from the success of ongoing reforms in the financial and enterprise sector, complemented by the strengthening of the portfolio management function.

Similar to Korea, the Philippines must also attempt to improve transparency in governance as well as the investment guidelines and practices relating to its reserve fund. The Social Security Commission manages assets of the Investment Reserve Fund of the Social Security System (SSS) according to the Social Security Law, which sets out details on allowable investment categories and limitations. The President appoints the Chair of the Commission, and its membership consists of the Secretary of Labor and Employment, the SSS president and seven appointed members – three each from the workers' and employers' groups, and one from the general public. In practice, there are direct and indirect pressures from various

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<sup>27</sup> The automatic transfer of NPS funds to the central government may still occur on a discretionary basis and appears to have continued in 1999-2000.



authorities to support government projects, including housing, and extend loans to risky second tier large enterprises – that banks refuse to provide – at rates that are far too low compared to the risks. Furthermore, the SSS has recently undertaken quite an aggressive investment policy in financial markets participating in big block tradings and taking excessive sector exposures. Although the 1997 Social Security Law authorized SSS to invest up to 7.5% of its portfolio in foreign assets, it has not yet invested abroad. Even if SSS were to diversify its portfolio to improve investment performance, in reality, this may require a lengthy phasing-in period due to the rather inflexible composition of its current portfolio – it holds up to 5% in non-performing loans, nearly 40-45% in member loans (of which significant portions are in housing loans) and another 40% in non-tradable government debts.

While Thailand has not yet accumulated much reserve funding from its newly implemented old-age pension system, the fund management structure will likely be quite similar to that for existing components of the social security system (sickness, invalidity, maternity and death benefits).<sup>28</sup> A tripartite investment subcommittee (with representation from employers, employees, the Bank of Thailand, the Budget Bureau, the Ministry of Finance, the Securities and Exchange Commission and the academic community) manages assets in accordance with guidelines issued by the Ministry of Finance for provident funds. However, there are apparent weaknesses in management and a lack of investment policies requiring the analysis of the nature and duration of liabilities. Furthermore, specifications in terms of acceptable risk exposure and diversification are often either absent or seriously deficient. In general, there is a heavy bias towards supporting public sector institutions that are illiquid and yield below market returns. With the enactment of the new old-age pension law and the potential growth in asset size (reaching 10% of GDP by 2030), the Social Security Office has indicated the desire to acquire international assistance in the preparation, coordination and implementation of investment policies for the funds.

#### **(iv) Social Security Type Systems in transition economies**

Various countries in the region are in transition from centrally planned to market-based allocation of resources, with uneven progress between the countries (China, Cambodia, Lao PDR, Mongolia, Myanmar and Vietnam). Information about these countries and the implications of the transition for their pension systems is mostly sparse and restricted, for the time being, to China, Mongolia and Vietnam. However, the better-documented experience of transition economies in Central and Eastern Europe and Central Asia<sup>29</sup> allows for generalization before addressing specific issues for these three countries.

General features of pension systems before and during transition. Compared to pension systems in market economies with similar levels of per capita income and industrialization, those in the former centrally planned economies were characterized by:

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<sup>28</sup> Even though these funds are supposed to be kept in separate accounts, they are not individual legal entities and mix with the general budget.

<sup>29</sup> See for example Holzmann (1997a) and Palacios et al. (1999).

- a higher level of urban work force coverage, since the government owned essentially all public enterprises, rendering the enforcement of regulations easier, and labor force participation, especially for females, was high;
- a more generous benefit level in a pension system that was invariably defined benefit, unfunded and publicly managed;
- contributions paid mostly or exclusively by the employer/public enterprises;
- a pension benefit structure that bore little linkage to the past contribution effort, paid little attention to work incentives and retirement decisions, had a low standard retirement age, and often distinguished among workers according to their working conditions; and,
- a low wage base for pension contributions due to the provision of essential goods and services free of charge or with heavy subsidies from the cash flows of socialized enterprises, which gave those enterprises social welfare-type functions and conferred an almost residual character to the cash labor income.

As a result of the transformation process, comprising, inter alia, price and trade liberalization, subsidy reduction and privatization, and implying (in some but not all countries) inflation adjustment, a decline in output, structural changes, and the emergence of (open) unemployment, several features of the inherited scheme led to problems (Holzmann, 1997a):

- Enterprises and individuals have exploited the existing regulatory and administrative deficiencies in a context of weakening government control, resulting in rising benefit take-up and lower contribution payment, thus amplifying growing arrears.
- The often severe reduction in budgetary subsidies required adjustments in the nominal benefit level, and higher pension expenditure thus reflects the shift from indirect (lower price level) to direct income support.
- Moreover, privatization and the imposition of a hard budget constraint on socialized enterprises have reduced their social policy functions and shifted corresponding expenditure to the budget.
- Policy actions in response to emerging unemployment and government restructuring have exacerbated expenditure problems. Various countries have introduced early retirement and disability provisions to cope with rising labor market disequilibria. Also, in the absence of elaborate social assistance schemes and means-testing procedures, governments turn to the provision of less targeted minimum pension benefits.

Mongolia's pension system shared much in common with those of pre-transition ECA countries, leading the government very recently to adopt a major pension reform plan. Under the inherited and somewhat altered current system, a contributor receives a pension of 45% of his/her highest consecutive five-year average wage for 20 years of service, and an additional 1.5% of the same wage base for each additional year, leading to a total replacement rate of 75% for 40 years of service. The normal retirement ages for men and women in this social insurance system are 60 and 55, respectively. Additionally, the system provides a minimum pension at a level of the basic wage. The contribution rate amounts to

19% (of which the employer finances 13.5% and the employee the remainder), and the self-employed can voluntarily join the system at a contribution rate of 9.5%. The total contribution rate to insurance funds (including pensions, social benefits, work injury, unemployment and health) amounts to 29% to 31% of labor earnings. As a result of this structure, the pension system is encountering the following difficulties:

- It is not self-financing. In 1997, the pension fund ran a deficit of 0.75% of GDP, with expenditure of 3.75% and contribution revenue of 3% of GDP. Budgetary transfers cover the deficit.
- Contribution arrears to the pension fund remain large. At the beginning of September 1998, total contribution arrears accumulated by budgetary bodies, state-owned and private enterprises reached TUG 5.25 billion (some 0.5% of GDP).
- Coverage has dropped. In July 1998, pension fund contributors from state-owned enterprises, budgetary bodies, and other enterprises with formal labor agreements amounted to only half of total employment (and private sector voluntary contributors are negligible in number).

In view of the financial unsustainability of the scheme, the government developed a reform plan<sup>30</sup> that Parliament recently adopted. It consists of a move toward notional, defined contribution (NDC) benefits (similar to those of Latvia, Sweden and Poland)<sup>31</sup> that imitate the DC contribution-benefit link.<sup>32</sup> This should improve compliance by existing contributors, increase voluntary participation among the self-employed and reduce future pension expenditure. Moving to NDCs can prepare the way for a later introduction of a multipillar system, consisting of (unfunded) NDCs and funded DCs, plus voluntary savings. Currently, the government considers the fiscal requirements for an immediate transition toward funded provisions as being too high. However, it envisions the development of well-regulated and supervised voluntary old-age saving instruments (insurance, pension funds) as an intermediate measure. The long-term reform package also plans to equalize the retirement ages of men and women at 60 and eliminate early retirement provisions.

China's pension system and reform agenda share some general characteristics with those of transition economies but also have unique features and problems. The initial pension system of 1951 closely followed the model in other centrally planned economies. However, during the Cultural Revolution (1966-1976), societal changes dictated the dismantling of the system, and public enterprises had to assume pension planning for their own employees. With the economic reforms in 1978, new regulations took effect that reaffirmed certain pension rights but also granted new and higher benefits (including incentives for early retirement). As a result, the number of pensioners jumped and expenditure exploded, requiring rising

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<sup>30</sup> USAID assisted the reform, and the World Bank's Social Protection Sector provided important intellectual inputs and support.

<sup>31</sup> For presentations of these country approaches see, respectively, Fox and Palmer (1999), Palmer (2000) and Chlon et.al. (1999).

<sup>32</sup> For a critical view on NDCs, see Disney (1999).

contribution rates for financing. Considerable SOE responsibility in establishing pensions for workers and government experimentation in reform have led to substantial differences in the basic parameters of the pension system (contribution rates, benefits and regulations) and reform strategies at the local and provincial levels. Various reform efforts have involved:

- shifting from enterprise insurance to social insurance by setting up social pooling systems for industries in urban areas;
- requiring individual contributions in order to distribute the pension cost burden;
- establishing voluntary occupational pension schemes and individual savings plans to supplement pensions; and
- partially pre-funding future pension debt by setting a higher contribution rate (limited to a few provinces).

While there is still no final consensus on how to unify the disparate local and enterprise systems, the State Council Circular No. 6 of 1995 proposed two models for the basic benefit tier (involving individual accounts and social pooling). Localities can choose one of the two or a combination thereof. Plan I emphasized individual accounts, while Plan II stressed the social component (see Annex B).

The 1997 State Council Document 26 draws a clearer picture of the key features of the envisaged pension system, including:

- a call for the “four unifications”: unified system, unified standards, unified management, and unified fund usage – applicable to all localities and different types of enterprises;
- a unified, multipillar system, consisting of a combination of a basic pension resulting from social pooling and individual accounts (unfunded and funded) – the DB portion should be reduced from 80% to 20% of wage base; and,
- a limit on employer contributions that should not exceed 20% of payroll for both pillars, with a share for employees rising to 8% over a phased-in period.

Still, the document does not specify how to achieve these results, and in practice, the unification of the system will require overcoming resistance due to the following conditions:

- existing differences in system parameters at the local or industry level, such as disparate benefit formulas as well as payroll taxes (contribution rates) due to variation in numbers of retirees – enterprises and localities with younger populations would initially lose, and those with older populations would gain through the pooling created by unification;
- generally high contribution rates – the enterprise still bears the bulk of the contribution burden – that make expanding unification to the dynamic non-state sector difficult;
- dispersion of responsibility among various government agencies, each with a vested interest in implementing its own plans at the local level; and,

- a history of local control over pension resources, which is clearly contrary to a trend in centralization and evidenced by the municipalities' attempt to distinguish their systems from one another in order to maintain control over surplus funds in the short run.

Even if the four-fold unification were to be achieved in the near future, several important questions would remain:

- How will the unified fund be managed? The experience with centralized systems in the region is not too encouraging.
- What reforms in the financial system are required to allow individuals to prepare for retirement with appropriate instruments?
- How will coverage be extended to the still largely agrarian population?

The pension system in Vietnam also exhibits features typical of systems in transition economies. A relatively generous formula determines (wage-indexed) benefits, which provide an average replacement rate of around 70% of covered wage. Actual retirement age, at 53 years on average, is about 5 years earlier than the already low age mandated for both sexes (60 for men and 55 for women). This results in a long average retirement period of about 25 years. Even though the contribution rate appears fairly high (at 15% of wages for retirement and death benefits and 5% for sickness, maternity and work injury benefits), it applies only to the basic wage, which amounts to perhaps 50% of total wage and an even smaller portion of total compensation when considering in-kind payment.<sup>33</sup> The ratio of contributors to old-age pensioners, the system dependency ratio, is rather high, at 36% – 55% including disability and survivors pensioners, who receive benefits equal to roughly one-half and one-third of those for old-age pensions, respectively – indicating maturation of the scheme but also revealing low labor force coverage (9.1%). With the economic transition, evasion has been on the rise.

Although the system is not self-financing, partly because of these design features, it is able to accumulate and invest reserve funds because the government made an (accounting) reform under which it makes budgetary payment for all retirees (and disabled) prior to January 1, 1995. Contributions to the system pay benefits for retirees and other beneficiaries of rights accrued since this date and form a separate fund under the management of the Vietnam Social Insurance Organization (VSI). This reform results, in principle, in repayment of the implicit debt accrued until 1995 and the full funding of new entitlements. In order to accomplish this, however, requires that the benefits and take-up age are in line with the contribution effort and that the accumulated fund receives sufficient and market-based real rates of return – this is, however, not the case.

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<sup>33</sup> Although payment in-kind and provision of subsidized goods and services by socialized enterprises has decreased over the past 10 years, these practices are still significant today.

In 1998 pension expenditures as a whole were 6,122 billion Dong while income was 9,384 billion Dong, leaving a balance of 3,262 billion Dong that went to the reserve fund.<sup>34</sup> On average since 1995, inflows have amounted to over 2,000 billion Dong per year. The value of the reserve fund at end-1998 was 8,887 billion Dong, representing 2.6% of GDP. Projected contributions should exceed benefits awarded after 1995 until around 2015, when the system will be compelled to begin drawing down the reserve fund. Currently, investment policy for reserves limits the portfolio options to government and approved commercial bonds, direct loans to government, and public development projects and enterprises, and the rate of return has been very poor, substantially below even the interest rate on bank deposits. Unless investment practice and performance improve, investment revenue's contribution to the amelioration of the system's long-term financing problem will be diminished.

Assuming no change in the system parameters, population aging will increase pressure on pension expenditure, underscoring the need for reform, which could involve the following measures:

- On a basic level
  - carefully regulate the granting of disability and survivors pensions;
  - raise the actual retirement age at least to the legislated level (i.e., reduce early retirement), or higher, considering the current average lengthy retirement period;
  - adequate benefits to bring them in line with the whole compensation picture (i.e., subsidized good and services, previous in-kind pay, etc.);
  - expand investment options for the reserve fund to improve rates of return; and,
  - attempt to expand coverage, thereby increasing the number of contributors and improving the short-term financial status of the system.<sup>35</sup>
- On a more ambitious level
  - implement notional accounts to improve the benefit-contribution link, thus helping to diminish significant evasion, and approximate a DC structure – a viable option since Vietnam appears to bear an advantageous starting position compared to Mongolia (in terms of potential to expand the system), which is currently undertaking this measure;
  - eventually attempt a shift to partial funding through a multipillar structure; and,
  - encourage the development of financial markets through simultaneous reform, as Mongolia is planning, which will also allow for the creation of private savings and investment mechanisms.

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<sup>34</sup> In 1998 VND 13,441.25 = US\$ 1.00.

<sup>35</sup> Potential for expansion is large, given the current low coverage in the private sector, which accounts for 91% of the employed labor force, and favorable demographic conditions. It is also appealing from an equity perspective since essentially only the state sector currently participates. In practice, expansion will depend on the disposition of private sector firms, which could be encouraged to participate by gradually shifting more of the contribution burden to employees.

### III. Opportunities in the Design or Reform of Retirement Income Provisions

The previous chapter showed that the countries of the region are facing common challenges in providing appropriate income support for the elderly in their rapidly changing societies. However, the low level of coverage, predominance of retirement schemes still in evolution, and existence of funded provisions in many countries provide ample opportunity for alternative system design or reform. This may allow the region to avoid the pitfalls encountered by most retirement schemes in the OECD countries. Furthermore, it offers the countries a chance to maximize the contribution of the pension systems to economic and social development within specific socio-cultural contexts.

The opportunities for the region are numerous and involve “getting things right” in three main areas:

- Avoiding mistakes made by other countries in the world. The region can draw from increasing experience and information regarding pension systems and their reforms.<sup>36</sup>
- Being innovative. Many new ideas and ample room for innovation and experimentation exist as part of the rethinking of social protection worldwide.
- Fostering financial markets. The recent crisis has dramatically revealed the importance of sound financial markets and the social consequences when they are absent. A well-planned pension reform can benefit both the social and financial sectors.

This chapter deals with each of these topics in turn.

#### 1. Avoiding Mistakes

The world’s experience with the design and implementation of pension systems has been fraught with mistakes, a full account of which is beyond the scope of this paper. But four main issues require the attention of policy makers in order to establish equitable and affordable retirement income provisions with minimal negative effects on the economy: (i) adoption of an integrated view on retirement income provisions; (ii) maintenance of balance among equity (individual and social) and efficiency considerations; (iii) avoidance of fiscally unsustainable schemes; and (iv) integration of public and private sector provisions.

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<sup>36</sup> The World Bank has started a Primer on Pension Reform – a sequel to the study *Averting the Old-Age Crisis* – that provides up-to-date information on design and implementation issues and continuously updated country case studies. The Primer Notes and Papers are available on the Worldwide Web (<http://www.worldbank.org/pension/>) and in hard copy from the Social Protection Advisory Service (email: [socialprotection@worldbank.org](mailto:socialprotection@worldbank.org)).

## **(i) Adopting an integrated view on retirement income provisions**

There are many sources of retirement income, of which the publicly provided support is often only a moderate share, if it exists at all. Besides income from public annuities and the drawing down of accumulated assets in provident funds, individuals variably are eligible for severance payments/retirement allowances, receive occupational pensions or gratuities, have accumulated own savings during labor force participation, live in their own housing, and may receive social assistance benefits or categorical subsidies when old, poor and without family. This diversity of possible retirement income sources dictates the need for a comprehensive (re)view of existing and potential options:

- Mandated severance payments/retirement allowances form a simple means of providing some retirement income but lose their function with the introduction of public pensions or mandatory funded occupational pensions (such as in Korea, Thailand, or the Philippines).<sup>37</sup> Keeping them mandatory increases the wage costs for the employer, who transfers the burden to the employee in the end through lower net wages. Furthermore, in most countries they amount to one month of salary per year of work, or 8.33% of annual wage.<sup>38</sup> An equal amount of contribution to a funded second pillar can provide better retirement income as a result of better protection against enterprise bankruptcy and a higher rate of return. Voluntary individual or group contracts with employers can still achieve the human resource function of severance payments.
- The recent crisis has increased the pressure for the introduction of income support systems for the unemployed, in particular unemployment insurance. The experience in Western economies with unemployment insurance has been mixed, and there may be better schemes to deal with idiosyncratic and cyclical unemployment, such as individual unemployment accounts. Under such an arrangement individuals would have to save, say, 2 weeks of salary per year until 30 weeks have been accumulated after 15 years. These savings can then be drawn down during spells of unemployment and any remainders used for consumption once retired. Combining individual retirement and unemployment accounts unambiguously reduces adverse labor market effects that afflict traditional unemployment income support systems (Orzag et.al., 1999).
- Consumption needs determine the demand for retirement income, which is increased by outlays during sickness. Access to basic health services in old age and/or the provision of health insurance thus bears a strong influence on the amount of necessary retirement income. Rising health care costs, partially driven in some places by the adoption of improved technology, have led to partial co-payment and reimbursement ceilings for some procedures under insurance plans and to user fees in systems that were public and free of charge, in principle. In addition to establishing public health insurance and

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<sup>37</sup> For a review of severance payments as part of labor market policy, see Cox-Edwards and Manning (2000).

<sup>38</sup> In Korea employers must now pre-pay 3% of this amount to the National Pension System, which reduces the amount to be saved in the retirement allowance scheme to 5.33%.



fostering the development of the private health insurance market, governments may be compelled to scale back or apply means-testing in situations where care for the elderly remains without charge. Thus, pre-funded health insurance schemes, well-managed basic health services, and carefully targeted assistance measures must be part and parcel of public retirement income considerations and policy.

- Access to own housing is a main component of non-monetary retirement income. The monetary equivalent of the consumption stream of owner-occupied housing constitutes an important share in the total income of elderly households worldwide. In this sense, the availability of actuarially fair reverse mortgage is an important instrument to increase retirement consumption and allow income smoothing.

Access to housing is also important for young households since the market-based housing rents typically exceed the annuitized value of owner occupied housing at market interest rate. Since young households have to pay an important risk premium plus main transaction costs on a market interest rate, pension schemes in the region often allow borrowing for housing against a share of the accumulated assets (such as in Singapore, Malaysia and the Philippines). However, borrowing beyond accumulated individual assets at below-market interest rates and in a guaranteed manner is an inappropriate approach, and governance problems, including corruption, often compound the negative economic effects. Thus, limits must apply, and contribution rates at a later stage in life may have to rise in order to achieve a minimum replacement rate. In general, such additional borrowing is better handled by specialized institutions, with pre-saving requirements and means-tested matching subsidies.

- Access to actuarially fair annuities in real terms is a crucial element of retirement income provision. Mandated annuities exist in the region only under social security-type schemes, with some, but not complete inflation protection. National provident funds concentrate largely on the accumulation phase, but provide only limited security during the disbursement phase (such as the phased withdrawal in Singapore). While lump-sum disbursement may be appropriate in close-knit, family-based societies in which the elderly engage in contracts with the next generation, fewer children and stronger individualized patterns of behavior necessitate disbursement procedures that provide sufficient income independent of the time of death and the size of the family. This is best provided by actuarially fair annuities in real terms, which, however, do not exist in any country in the region.
- Tax treatment at the individual and enterprise level is important in determining the nature of the retirement income portfolio. Differential tax treatment leads to adjustments in the portfolio that are not based on the underlying return, risk and liquidity characteristics, with negative effects on resource allocation. As a result, all retirement income (including housing) should, in principle, be subject to the same principle of taxation. While most countries in the world apply the comprehensive income-type tax system, for retirement income provisions a consumption-type treatment has emerged as the standard. Of the

two main alternatives EET or TEE, most countries apply the first approach, which consists of exempting contributions to pension funds/social security schemes and the fund income from taxation while taxing the pension benefits upon disbursement (Whitehouse, 1999). But the straightforward application of an EET system depends upon the tax collection infrastructure to withhold retirement income distributions and track such withholdings against the combined income for individual retirees. After government has chosen either approach, it must apply it consistently and refrain from short-term changes for budgetary and political reasons. Most countries in the region fall far short of these standards.

## **(ii) Balancing individual and social equity with efficiency considerations**

Ideally, publicly mandated or provided retirement income provisions should replace income that a foresighted individual/household would have decided to save independently and also provide income at socially determined poverty level for the lifetime poor. While highly valued for their social policy objectives, both provisions create distortions in individual decisions on labor supply and saving, which are accentuated if interpersonal income redistribution toward the lower income strata enters the benefit structure. The resulting trade-off between equity and efficiency calls for careful balancing of individual and social equity objectives and attention to the following considerations:

- Providing or mandating too high replacement rates in public schemes may lead to over-provisioning and current welfare losses for individuals – such schemes distort the consumption profile toward the future. Higher replacement rates require higher contribution rates to keep the scheme financially sustainable, and the corresponding rise in payroll taxes stimulates the shift of labor from the formal to the informal sector. There are no clear and undisputed guidelines for the optimal level of mandated replacement rates from unfunded and funded pillars, but most pension economists consider a rate above 60% of active wage excessive. For developing-type economies, many would set the threshold at 40% and below under the proviso that access to safe and market-remunerated voluntary saving vehicles do exist.
- Closely linking contributions and benefits can reduce the unavoidable distortions of mandated provisions. Defined contribution schemes with market-based remuneration accomplish this most easily, but unfunded notional defined contribution schemes or their steady state equivalent defined benefit schemes (such as the German coefficient or French point system) can also approximate the effect. De-linking benefits from contributions through final wage schemes, soft eligibility rules, or non-transparent redistributive features, however, has proven to be very costly worldwide. In general, direct budgetary means (taxes and public goods and services) are much better to attain income redistribution objectives. For the introduction of special provisions (such as credits for maternity), a transparent mechanism on a cash basis is best – promise now and pay now.

- Governments should exercise caution with regard to the mandatory inclusion of certain groups, such as the self-employed and agricultural workers, in earnings-related public retirement schemes. Even low contribution rates for mandated retirement income provisions (of say, 10% and below), may still lead many individuals to stay in the informal sector, at least for some periods during their active life. The reasons include the existence of other taxes incurred in the formal economy, a high subjective discount rate as a result of high minimum consumption needs but reduced capacity to borrow against the future, low explicit or implicit rates of return on contributions but higher opportunity costs as a result of better investment possibilities or borrowing needs (particularly important for self-employed and small enterprises), and diminished credibility of the public scheme due to governance or information problems (see Holzmann et al., 2000). Strengthened administration, including efficient fines and penalty systems, helps at the margin but does not solve the underlying problem (that staying outside the system may be individually rational). This also indicates the need for a well-targeted safety net scheme for the poor elderly.
- Efficient social safety-type provisions for the elderly are difficult to operate in any society, but even more so in low- and middle income countries. From the perspective of poverty alleviation, universal provisions, such as a social pension from age 65 onward, work best but are expensive. Targeting may reduce costs but requires an efficient administrative set-up and creates moral hazard problems. Experience indicates that targeted provisions function best at the local level with co-financing from the central government and proxy targeting in countries having low administrative capacity.<sup>39</sup>

### **(iii) Averting fiscal unsustainability**

Pension systems on a pay-as-you-go basis have a major advantage and a major risk. The major advantage is that they can disburse benefits immediately through the inflow of current-period contributions. This situation is magnified in countries with a young population structure and, correspondingly, a relatively small number of beneficiaries, in which a large number of workers can finance the payment of current high pension benefits at a low rate of contribution. This advantage, however, also constitutes the systems' main risk. Providing and increasing benefits now is politically expedient since it essentially allows for the transfer of the bill to future generations (and politicians) in a non-transparent manner. The risk becomes critical for an aging population, as the pension reform discussion over the last decade has documented (Holzmann, 1988, World Bank, 1994). Specific measures to avoid financial unsustainability are necessary, including:

- Keeping the scope of the unfunded scheme low. A country that starts an unfunded scheme should set a low target replacement rate, essentially for poverty alleviation only,

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<sup>39</sup> The Social Protection Unit at the World Bank has started a project on "non-contributory pensions," which investigates the effectiveness and efficiency of alternative schemes such as categorical social assistance, social pensions, demogrant, etc. Final results should be available in early 2000.

and supplement it through mandated and voluntary funded provisions. This would permit the immediate disbursement of low benefits to some part of the population formerly working in the formal sector but also keep the implicit debt low. The World Bank encouraged Thailand to adopt this approach.

- Using actuarial assessments. Unfunded pension schemes create an implicit debt, thus rendering a mere cash flow (current revenue and expenditure) analysis inappropriate. This calls for appraisal on an actuarial basis, i.e., accounting for the present value of revenue and expenditure and the difference – termed the actuarial deficit, if negative. Since the actuarial estimates depend on projections regarding fertility, wages or interest rates, independent actuarial committees should conduct them on an annual basis and publish and discuss the findings in a public context (for example, in Parliament or Congress, as currently in the US, Canada and New Zealand, and possibly Mongolia in the future). The actuarial projections must have a long horizon – of at least 75 years – to provide a sound assessment of the actual status of the scheme.
- Securing the reserve fund. Pension schemes on pay-as-you-go basis typically accumulate a reserve fund during maturation since contribution revenue exceeds expenditure for some protracted period of time. Interest income on this fund should allow the steady state contribution rate to remain well under the rate needed to cover expenditure. In order to achieve this objective, there needs to be a strong governance structure for the reserve fund that isolates it from political pressures to use the available resources for other public programs that provide low interest income. Countries in the region have not been successful in this regard, but there are now good practice examples available, especially as manifested in the recent Canadian pension reform (Iglesias and Palacios, 2000).

#### **(iv) Integrating public and private sector pensions**

Pension schemes for public sector employees have invariably been a country's first formal retirement system. Especially for civil servants, these schemes have been intimately linked to their wage structure and special status. The defined benefit structure based on final wage signals specific incentive objectives and relations with the public employer (sovereign). Moreover, the initial lack of contributions by the employee suggests that the retiree is merely excused from service and remains bound to the prior employer. While this system had a rationale for high-level civil servants in the past, it expanded gradually to most or all civil servants and soon to most or all public sector employees. Nowadays, such a system is largely at odds with modern civil service management, privatization, and the need for mobility between the public and private sectors. It should be changed in the following ways:

- The basic scheme should apply equally to public and private sector workers. Such a harmonization allows full mobility between the public and private sectors. Some sub-groups of the public sector, such as the army and judges, may warrant special schemes, but they require a careful review and full justification. Many industrialized countries are

moving in this direction, including the United States (since 1983) and Australia (since 1993).

- As with any large enterprise, the government is free to supplement a basic scheme with another pillar for its employees. For reasons of mobility, these supplementary pillars increasingly take the form of DC plans (including in the World Bank since 1998) that can be taken along to any new employer.
- Changing the pension system for public employees invariably requires a review of the total compensation package, including the wage structure and wage profile, and hence has to be an integral part of public sector reform. While such a reform may leave the present value of compensation constant, the flattening of the wage curve for civil servant entrants for reasons of competitiveness with the private sector and better incentives inside the service leads to a cash flow deficit at the beginning of the reform.

## **2. Being Innovative**

The need to rethink pension design provides the region with a unique opportunity to be innovative, to try new avenues aligned with or independent from the worldwide reassessment of pension systems and other social protection arrangements. Some of the avenues have already been explored, while others may lead into uncharted territories. But since such experimentation takes place on a global scale and is fostered by rising experience sharing among the players, the risks are small while the potential gains are large. This section highlights areas where actors outside and within the region are undertaking new approaches that may be useful to various countries considering or implementing pension reform or other policy intended to strengthen old-age income support.

### **(i) Moving toward multipillar structure**

To minimize the political and fiscal risk while securing retirement income in an aging population, many countries throughout the world are moving toward a multipillar structure for their pension systems. This consists of a mandated, publicly managed and unfunded defined benefit scheme supplemented by a privately managed and funded defined contribution scheme, with additional retirement provisions on a voluntary basis (assets, annuities, housing, etc.). This strategy started in Chile (1981) and reached 7 other countries in Latin America by 1999. It provided the basis for reforms in the United Kingdom (1985), Switzerland (1985) and Australia (1993) and is under discussion in many other OECD countries. The transition economies in Central and Eastern Europe have adopted the approach (Hungary and Kazakhstan, 1998, and Poland, 1999 – forming the avant guard in the region), and many countries worldwide are considering it (Schwarz and Demircuc-Kunt, 1999).

While a move toward a multipillar structure is global and encouraged by the World Bank, it does not constitute a blueprint for pension reform (Holzmann, 2000). So far, each country has developed its unique reform approach, determined by its starting position, national preferences, and macroeconomic and structural constraints, with the result that there are no two identical systems in the world. This diversity of experiences leads to an important learning process in design and implementation, which countries in the EAP region should review closely. It should not disallow own approaches, but rather encourage them while taking account of experience so far.

One of the areas of innovation and progress could be the size and structure of international diversification of accumulated reserves. The benefits to international diversification (reducing risk and often increasing returns) are a function of the correlation of returns between domestic and foreign investments. For smaller countries with less economic diversification, the benefits to international exposure are particularly pronounced. Traditionally, countries have been reluctant to permit pension funds to invest an important share of their assets outside the country. Chile allowed foreign investments only at the beginning of the 1990s, gradually expanding the limit to 12% by 1999, while reforms in some countries, such as Costa Rica, have been more open from the very beginning. Most countries in the EAP region also follow a conservative regime. However, the recent financial crisis has highlighted the importance of international diversification for reasons of return and risk. A study by Solomon Brothers from the mid-1990s for Malaysia reportedly states that with international diversification the Employee's Provident Fund could have achieved an increase in the return by 25% while reducing the risk. Since the inception of the financial crisis this assessment has certainly been strengthened.

## **(ii) Extending coverage**

Enhancing pension coverage for the labor force is a challenge for governments throughout the world. Except for universal systems financed from general budget (such as New Zealand and Australia), all contributory schemes suffer from less than full coverage of their work force, and in some countries coverage is actually falling (including the United States and Western European countries). In the transition economies of Eastern Europe and Central Asia where coverage was essentially 100% under central planning, it has fallen by 30% or more in most cases. In the majority of low- and middle-income countries of the world it has never exceeded 50%. Most recently, the attempt in Korea to expand coverage to small enterprise (less than five workers) and the urban self-employed has proven difficult in administrative terms and had to be halted.

There has been optimism among many economists that a move toward funded provisions would increase coverage significantly due to the stronger contribution-benefit link. Data from Chile may indicate an improvement, albeit small, but other countries have experienced no change or even a fall in coverage (such as Argentina). One reason for the fall may be that the closer contribution-benefit link actually renders the new system less attractive for low-income groups that often profited from the old redistributive system. The World Bank is

currently investigating the exact reasons for the lack of growth in coverage under multipillar systems, and first results should be available toward the end of the year (see Holzmann et al., 2000). If the conjecture were true that diminished participation by the low income groups is the result of too high opportunity costs, two main avenues could be envisaged: (i) fostering means-tested provisions to support low-income groups during retirement, with new mechanisms to reduce the moral hazard problem of saving insufficiently for retirement because of these provisions, or (ii) subsidizing the participation of low-income groups through public contribution supplements in the funded scheme (as in Mexico, Colombia or Uruguay) or other measures.

New approaches also seem necessary to extend coverage to the self-employed and farmers. While many members of these groups will be able to live from their accumulated assets during retirement or enter into an intergenerational arrangement with their children, others are likely to leave their profession during their active life as a result of urbanization and industrialization. Entering mid-career into an employees' pension scheme will provide only low benefits when old or may lead to the decision to remain in the informal sector from the very beginning. In this case possible options include flat-rate contributions and benefits for the total labor force (such as in Japan), or access of the informal sector to some new form of retirement saving. However, what should be avoided are special schemes for self-employed and farmers – worldwide they have proved extremely costly for the budget and politically impossible to dismantle once established.

### **(iii) Taking new approaches to reduce administration costs**

Centralized systems often, but not always, have one major advantage: They incur low administrative costs for contribution collection, record keeping and communication, and benefit disbursement. Furthermore, since they are monopolies, they face no marketing costs. This advantage is in almost all cases countered by lack of choice, low quality service, political risk, and low interest rates on accumulated reserves. Multipillar pension schemes likely do better in some of these areas but have done less well with regard to administration costs during the accumulation and disbursement phase (James and Vittas, 1999; Mitchell 1996). High administrative costs can eliminate the rate-of-return advantage of funded schemes and consequently lead to a lower replacement rate or require a higher contribution rate (Thompson, 1998).

A major share of the high costs is due to duplication of administration and/or expensive marketing. As a result of the recent experience in Latin America and elsewhere, there are many attempts to improve this situation, including:

- Clearing houses for contribution collection, record keeping and communication, and benefit disbursement for both funded and unfunded systems (such as in Argentina, Mexico, Poland, Sweden and the United Kingdom). Physically, the schemes can use the existing administrative structure, and in terms of governance, they can form a joint-stock company of public and private pension funds (see Thompson, 1999).

- Constraints on the choice of funded provisions, such as more decentralization of asset management under pre-defined portfolios and competitive bidding processes among private sector fund managers (such as in Sweden).
- Group annuities or annuities for a whole pension cohort under international bidding process (in discussion).

#### **(iv) Extending SRM through informal support and safety nets**

Even with improvements in formal mechanisms of old-age income provision, the informal, family support system will still furnish the bulk of assistance to most elderly. In this regard, the region appears to have a special resource since patterns of family support have deep cultural roots and have demonstrated remarkable resiliency in the face of rapid socioeconomic change. Governments should attempt to take advantage of this characteristic and establish policies to strengthen and complement existing informal support. Beyond this, there is a clear need to develop safety nets to protect the limited number of elderly who do not have family and respond to situations in which informal systems experience unmanageable pressure, as during the recent crisis.<sup>40</sup>

Some researchers have expressed concern that the introduction of formal support might “crowd out” or negatively alter the family care system. Indeed, studies in the Philippines and Singapore (as well as the United States and Peru) have documented an association between formal income transfers and the reduction of private support (Chan, 1997; Cox and Jimenez, 1992, 1993; Abrams and Schmitz, 1984). This type of situation only applies to a small percentage of families in most countries of the region, where coverage of formal support is often quite limited. At any rate, government can be careful to design policies to foster, or “crowd in,” familial support (World Bank, 1994), both in cases where formal programs exist – by complementing, rather than substituting for them – and where they are absent, as indicated in the following examples:

- Tax incentives may encourage workers (at least those in the formal sector) to offer support to their elderly parents. Concerned with smaller family size and increasing female labor force participation, the government of Singapore offers tax deductions to adult children who care for elderly parents, and Malaysia provides a tax rebate or small stipend in such situations.
- Changing the legal structure sometimes presents opportunities for the creation of mechanisms for the elderly to consolidate family support. In a context of changing traditional inheritance patterns in Taiwan and the Republic of Korea, some policy makers have advocated reductions in inheritance taxes so that the elderly’s patrimony is not

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<sup>40</sup> In the absence of complementary formal services, family support can break down more quickly due to the unrelieved burden it experiences, especially among the poor.



diminished and they are not impelled to transfer property to children before death. Singapore instituted the Maintenance of Parents Act in 1994 and established a tribunal in 1996 to handle cases of parent neglect (Chan, 1997).

- Housing policies can promote living arrangements – coresidence or quasi-coresidence – favorable to the elderly. In countries in which governments play an important role in housing provision, they can accomplish this through the adaptation of public housing policies. For example, Hong Kong changed former public housing regulations that obligated married children to move out of their parent's unit to allow one married child to stay when the parents are elderly and need care. Public housing authorities in Singapore and Malaysia give priority in assignments to married children and their parents who apply for adjoining apartments. In countries where the private sector predominates in the housing market, governments can provide lump-sum payments for housing upgrade/expansion for those willing to accommodate elderly family members.
- Targeting of social assistance to destitute elderly or those without family support can reduce leakage of benefits to those with adequate support arrangements. The government of the Indian state of Kerala has designed a social assistance scheme for the elderly falling into the following categories: widowed; handicapped; childless; low-income agricultural worker; and/or workers in selected industries left out of the national Provident Fund Scheme (Tracy 1991). Policy-makers in China experimented to a limited extent with a similar approach in assuming responsibility for the childless elderly, who comprise a small proportion of the entire elderly population. They did this in part to promote the one-child family planning policy, based on the assumption that government care for the childless elderly would reduce the incentive for large numbers of children.

While these types of actions likely bear small individual effects, they may have a more significant cumulative impact, especially in combination with other formal interventions discussed earlier. Most important is the structuring of targeted safety nets for the elderly who lack family care or whose families have little capacity to support them, especially under crisis conditions.

### **3. Fostering Financial Markets**

The introduction of funded pensions or the move from unfunded to multipillar pension structure should not be undertaken for the sake of financial market reform. But well coordinated pension and financial market reforms can create a win-win situation in which both the social and financial sectors profit. On the social side, funded retirement arrangements should provide access to high returns (which implies lower contributions for a target replacement rate, or a higher replacement rate for a given contribution rate), may better shield against political risk and fiscal unsustainability in an aging population, and have less distortionary economic effects. On the financial side, well-conceived funded arrangements can contribute to the development of financial markets, making them more liquid, deeper and more sophisticated, which in turn may contribute to economic growth (see Musalem and

Catalan, 1999). The Chilean experience appears to support this conjecture (Holzmann, 1997b). Exercising financial leverage in the marketplace may also allow pension and provident funds to stimulate improvements in corporate governance practice (Vittas, 1995), including through strategic intervention in the stock market. To achieve these financial market effects, however, requires specific arrangements: (i) a decentralized approach to pension fund management; (ii) an appropriate governance, regulation and supervision structure; and, (iii) the creation/support of new market instruments.

### **(i) Decentralizing pension fund management**

A main characteristic of the Latin American pension reform, largely echoed in recent reforms in countries of the OECD, Eastern Europe and Central Asia, has been decentralized pension fund management.<sup>41</sup> In Latin American countries with reformed pension systems, the governments allocated the management of pension fund assets to specialized institutions under private management in a competitive setting (AFP – *Administradores de los Fondos de Pensiones*) that bear the sole objective of maximizing the rate of return for their stakeholders – i.e., the individual members or contributors. To avoid undue risk taking, the owners of the separate management companies must follow investment guidelines and in some cases guarantee a rate of return. While pension and financial market economists do not universally appreciate the usefulness of these investment and guarantee regulations, the proposed alternatives go well beyond the current decentralized structure, with a view to opening the provision of retirement income assets to the entire financial sector (Shah, 1997).

In contrast to this decentralized approach, the countries in the EAP region essentially favor centralized solutions for (national) provident funds (Brunei, Indonesia, Papua New Guinea, Malaysia and Singapore) or the reserve funds of social security systems (China, Korea, Philippines, Thailand and Vietnam).<sup>42</sup> The only exception so far seems to be the system that Hong Kong is establishing under the Mandatory Provident Fund Schemes Ordinance. The current centralized structure in most countries, however, has important drawbacks, including:

- Low rates of return. While fully comparable data for these countries are not available, the existing evidence points to below market rates of return in all countries.<sup>43</sup> For example, legislation in Korea has required the pension fund to loan two-thirds of its reserves to the Ministry of Finance, which in turn invested the funds in public works and projects. The return on this portion of the portfolio between 1988 and 1997 was about 2.5 percentage points less than that earned by the part invested in the financial markets

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<sup>41</sup> Decentralized pension fund management was present before these reforms through employer-sponsored occupational pension plans in OECD countries.

<sup>42</sup> Note that there are decentralized private, employer-sponsored occupational pension plans in several countries of the region.

<sup>43</sup> It should be noted that, when comparing rates of return between the public and private sector contexts, the rate of interest for the private sector is that obtained after including the management fees – i.e., the rate of return provided by the pension fund management companies and not the “before fee” rate of return usually emphasized.

(mostly corporate and municipal bonds and some equities). The national provident fund in Singapore appears to have credited member accounts with less than the actual return on investments (3% less), revealing an implicit taxation of returns rather than poor investments. In any case, this ultimately translates into lower benefits for members upon retirement.

- One main reason for the low returns is that the fund assets are hostage to budgetary needs and/or politically determined investment decisions. A major side effect is that a market-driven government bond market, which can serve as an important benchmark market for enterprise bonds, has not developed in any of the countries. Another effect is that the capital needs of the private sector are under-served as a result of the issue of new shares and long term corporate bonds that in turn can be bought by the pension funds. Consequently, enterprises had and still have to rely on short term bank financing, which in turn leads to very high leverage ratios and vulnerability as witnessed during the recent financial crisis. In addition, the lack of bond and share issue preempts the governance role both instruments can exert.
- Centralization may have also impeded the development of new financial instruments. These typically emerge under a decentralized setting through the demand for specific assets by private pension funds to fit their liability structure or the competitive pressure to engage in profit-enhancing arbitrage. Examples include mortgage bonds, developers' funds, venture capital and other forms of securitization (Davis, 1995, 1998).

Once a centralized structure is in place, the move to a decentralized approach is not an easy undertaking, and there are no blueprints available. Some preliminary ideas involve:

- Opting-out for part of the accumulated assets. Under such an approach, the central provident fund allows the selection of outside investment instruments, for example when the accumulated assets have exceeded a minimum amount. Singapore recently did this with mixed results, which may actually be due to the financial crisis and the restricted availability of investment alternatives.
- Outsourcing of asset management to the private sector under competitive bidding procedures. Malaysia has undertaken the first attempts in this direction. The reported mixed or unsatisfying results may be due to the absence of benchmarking or of a level playing field in the private sector. The approach, however, can also apply to accumulated reserves of partially funded schemes and has been proposed for Korea, Thailand and the Philippines.
- Outsourcing of asset management and investment to foreign investment companies, such as in an international index fund. This still requires a regulatory and supervisory umbrella, but more importantly a fully liberalized capital account.

- The creation of private pension funds and the granting of permission for individuals/employers to shift all assets to the private sector. This is the most ambitious option and would create important pressure on the national provident fund if the rules provide for equal treatment.
- An alternative to the full-fledged decentralization of investment management would be a 401k-type of investment strategy under which the authorities select three to four portfolios of differing risk-return profiles and then let the individual allocate its permissible assets among them.<sup>44</sup> The main advantage of this approach would be that the provident and pension fund authorities could use their financial power to minimize investment management fees and to ensure compatibility between the portfolio choices and retirement objectives. The trade-off is that this would restrict choice.

## **(ii) Reviewing governance, regulation and supervision**

Whatever approach a country chooses for the management of its pension fund assets, the rules have to ensure that management (the agent) acts in the best interest of contributors (the true principal) and does not follow individual interests or political pressure.<sup>45</sup> To secure these prerogatives requires a rethinking of governance structure, regulation and supervision.

The enhancement of the governance structure of national provident funds and social security reserve funds necessitates increased transparency and accountability of management and an effective separation between global portfolio decisions and actual investment management. Including representatives of all major societal stakeholders in the supervisory and portfolio decision committee and making management fully accountable for agreed decisions and benchmarks could increase transparency. The portfolio decision committee should provide the broad guidelines for asset categories, selected benchmarks, active or passive management, and the scope of outsourcing. An independent asset management unit should undertake the actual investment decisions and handle the outsourcing based on the agreed criteria.

The establishment of privately managed pension funds and other financial intermediaries providing retirement assets should follow international best practice in the areas of regulations for licensing; capital, accounting and reporting requirements; custodian services; and investment regulations. While differences in international practice and debate about specific regulations exist – for example, regarding investment rules (when to move from an initial draconian rule to prudent person principle) – there is largely consensus on minimum

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<sup>44</sup> If the public management is considered to be inappropriate, private management could be considered as providing similar options to the individuals, as in fact the 401k plans do. While Singapore's CPF is moving somewhat in that direction by liberalising investment choices under the CPFIS scheme, since investments are made by individuals, management fees and transactions costs remain high.

<sup>45</sup> In the East Asia and Pacific region, governments have demonstrated a tendency to provide guarantees on even non-state directed loans and investments by the pension and provident fund authorities, which should be explicitly identified along with their accompanying risks.

regulations and, more importantly, what should be avoided. The basics for pension fund supervision, regardless of the model chosen for fund management, involve oversight of (i) the entire contribution collection and data management system (whether centralized or not); (ii) recording and maintenance of data on contributions, funds accruals, disbursements, employment, wages, retirement, disbursements, death and survivorship, etc.; (iii) funds management (in association with financial market regulators); (iv) the receipt and dissemination of information to the contributor; (v) benefits disbursement done in a secure and efficient manner; (vi) detection, control and sanction of misrepresentation and fraud; (vii) mechanisms to ensure adequate portability; and (viii) a vehicle for dispute resolution.

The existence of a separate supervision mechanism for pension funds has emerged as one undisputed component of best practice internationally (Demarco and Rofman, 1998). The Chilean reform pioneered the principle, and all other reforms adopted it. Whether pension fund supervision should be independent or part of a comprehensive supervisory structure for all financial market institutions (such as FES in the UK) is of secondary importance. What is most critical is the supervisory body's independent mandate, a transparent selection mechanism for its head and staff, access to adequate financial resources, and power to sanction breaches of regulations.

### **(iii) Creating/supporting the provision of new instruments**

While the market should determine the creation of new instruments/assets for retirement income provision, there are a few important areas for a government role. They include the provision of market-determined government bonds, price-indexed government bonds, up-to-date mortality tables and information on key economic variables.

As discussed, the provision of market-priced government bonds serves an important benchmark function for the private sector. Only if those bonds provide a sufficient span of maturity (at minimum from 1 to 10 years) and efficient secondary markets have been established will similar private sector instruments emerge in sufficient size and quality. Both public and private bonds are important for pension funds in developing an efficient portfolio and matching assets and liabilities. While young members of pension funds may prefer a largely share-determined portfolio, older members are likely to prefer a largely bond-determined portfolio to reduce the income risk prior to retirement. No country in the region so far provides government bonds with market-determined pricing and maturity, hence stifling the rise of a functioning secondary market. Equally important, government has to set up and supervise the property right mechanisms associated with bond holding and transferal including custody, transferal procedures, tax treatment, legal recourse in case of non-payment and/or fraud. Many times this implies the removal of cumbersome transfer taxes, stamp duties and withholding requirements. Efficient registries (with computer systems to facilitate multiple transfers) are also necessary. Custodians have to be certified and a tracking system is needed to follow the custodian. There also has to be a clearing and settlement system with adequate oversight to ensure the efficient movement of bonds and cash when bonds are traded or redeemed at or before maturity.

In order to issue price-indexed annuities, private insurance companies need access to price-indexed bonds. Otherwise, the private sector is not able or willing to bear the inflation risk. Needless to say, price indexed bonds depend also upon a price index that is: (i) reliable and not subject to manipulation; (ii) composed of a proper basket of price indices; and (iii) updated and published each month and reported in a timely fashion. With the issue of price-indexed government bonds of appropriate maturation (ideally up to 30 years), the government enters into a kind of self-binding mechanism since it would not profit any longer from surprise inflation to reduce the value of government debt. Once these are in place, the private sector will start to issue price-indexed bonds on its own. Chile has successfully demonstrated the feasibility of this approach for developing countries, and various industrialized countries have started to issue these indexed bonds (including the UK, US, Sweden, Argentina and Brazil). To date no country in the EAP has provided them.

In order to issue annuities at all that are approximately actuarially fair, insurance companies need up-to-date mortality tables based on mortality history and projections for specific age-sex groups.<sup>46</sup> A credible government institution must issue the basic data according to international standards. This will not only allow private insurance companies to appropriately price their products, but it will also permit the government to supervise the pricing as part of its consumer protection function. Availability of the most comprehensive set of information would allow insurance companies to price annuities for high mortality risk groups cheaper than for low mortality risk groups, otherwise there would be cross-subsidies, and the first group would avoid buying annuities.

Last but not least, the government has to provide series and up-to-date information on key economic indicators, market transactions and additional demographic indicators, which allow the financial market to supply and appropriately price instruments, including (i) prices and quantities of bonds issued and traded; (ii) rates on other financial market references (bank instruments for example); (iii) wage data; (iv) labor force participation; (v) pension fund contribution compliance data, reserves, accruals, disbursements etc; (vi) retiree numbers; (vii) disability experience data; and (viii) fertility data.

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<sup>46</sup> These should incorporate information on the cause of death in order to be able to identify risks associated with smoking, alcohol and other drug use, income level, etc.

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## **Annex A: Statistical Tables**



**Table I.1 Selected Demographic and Economic Characteristics, 1996**

Country	Population, total ('000)	Population residing in urban areas (%)	Old Age Dependency Ratio (65+/15-64)	Participation Rate Labor Force/ Population 15-64	GDP per capita, PPP (current international \$)	Public Sector employees/ labor force	Pension contributors/ labor force	Provident/Pension fund assets (% of GDP)	Public expenditure (% of GDP)	Gross national savings (% of GDP)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Brunei	301	69.8	5.5	69.7	..	48.0	<50.0	>5	..	..
Cambodia	10,234	21.0	5.5	95.2	1,310	..	..	0	..	16.6
China	1,215,414	31.0	9.6	88.8	2,910	5.3	12.3	0	8.0	40.5
Hong Kong, China	6,311	95.2	13.8	73.3	23,950	6.4	..	0	..	30.7
Indonesia	197,156	36.4	7.0	74.8	3,410	4.9	10.6	5.6 <sup>a</sup>	14.6	29.2
Korea, Rep.	45,545	82.3	8.2	69.0	13,090	4.6	46.5	10.0	18.6	33.6
Lao PDR	4,726	21.3	7.0	..	1,260	..	..	0	..	..
Malaysia	21,129	54.3	6.5	66.3	7,780	12.6	50.0	54.5	21.9	36.9
Mongolia	2,498	61.3	6.7	84.3	1,500	..	50.0	0	21.6	26.6*
Myanmar	43,381	26.2	6.8	82.0	..	..	..	0	10.1	13.1
Papua New Guinea	4,401	16.3	5.1	85.0	..	..	7.3	11.0	..	26.0
Philippines	71,899	54.9	6.0	70.2	3,440	5.6	21.0	9.2 <sup>b</sup>	18.5	20.1
Singapore	3,044	100	9.0	71.7	27,010	7.9	65.3	55.6	21.0	51.2
Thailand	60,003	20.3	7.6	87.6	6,840	5.6	18.0	6.7 <sup>c</sup>	16.5	33.6
Vietnam	75,355	19.5	8.2	87.2	1,570	7.9	9.1	2.6 <sup>d</sup>	..	16.7

.. Not available

\* 1994

<sup>a</sup> assets of JAMSOSTEK, TASPEN, ASABRI and employer-sponsored provident funds (see Annex B4).

<sup>b</sup> includes SSS and GSIS (see Annex B9)

<sup>c</sup> B 314 billion, end-1998: provident funds (50%), GPF (31%) and Social Security fund (19%) (Thanompongphan, et.al., 1999 in Asher, 1999).

<sup>d</sup> See Vietnam country profile (Annex B12): reserves accumulate only because the government budget pays benefits of persons who retired before January 1, 1995.

Source: Statistical Information Management and Analysis System, The World Bank; (6) Schiavo-Campo et al., (1997b) and Annex B; (7) and (8) Annex B and Iglesias and Palacios, 1999.

**Table I.2 Social Risk Management in Old Age**

<b>Arrangements/ Strategies</b>	<b>Informal/Personal</b>	<b>Formal/Financial market-based</b>	<b>Formal/Publicly- mandated or provided</b>
<b>Risk reduction</b>			
	<ul style="list-style-type: none"> <li>• Healthy life-style for continued labor force participation</li> <li>• Change in earnings and consumption profile</li> </ul>	<ul style="list-style-type: none"> <li>• Information on retirement income needs, alternative retirement provisions, financial market performance, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Macro-economic projections</li> <li>• Enhancing financial literacy</li> <li>• Providing indexed government bonds</li> <li>• Regulating and supervising financial markets</li> </ul>
<b>Risk mitigation</b>			
<b>Portfolio</b>	<ul style="list-style-type: none"> <li>• Investment in human, physical and real assets (including housing)</li> </ul>	<ul style="list-style-type: none"> <li>• Investment in multiple financial assets</li> <li>• Provision of occupational pension</li> </ul>	<ul style="list-style-type: none"> <li>• National provident funds</li> <li>• Encouraging voluntary savings (third pillar)</li> </ul>
<b>Insurance</b>	<ul style="list-style-type: none"> <li>• Intra-family and community risk sharing arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase of annuities</li> </ul>	<ul style="list-style-type: none"> <li>• Social insurance (unfunded DBs)</li> </ul>
<b>Hedging</b>	<ul style="list-style-type: none"> <li>• Marriage</li> </ul>		
<b>Risk coping</b>			
	<ul style="list-style-type: none"> <li>• Conversion of real assets (including reverse mortgage)</li> <li>• Continued labor supply</li> <li>• Intra-community transfers/charity</li> </ul>	<ul style="list-style-type: none"> <li>• Conversion of financial assets</li> </ul>	<ul style="list-style-type: none"> <li>• Means tested social transfers in cash or kind</li> <li>• General and categorical subsidies</li> </ul>

*Note:* Three risks are considered: (1) insufficient accumulation of resources for old-age, (2) outliving accumulated resources due to uncertainty of death, and (3) variability of income stream.



**Table II.1 Population Dependency Ratios (Indicated Age Group/Pop. 15-64)**

Region*/Group	1960	1970	1980	1990	1995	2000	2010	2020	2030	2040
<b>0-14</b>										
East Asia & Pacific	70.7	73.8	63.2	46.6	43.1	41.0	33.1	31.0	30.6	30.9
Europe & Central Asia	49.4	46.3	40.3	40.6	37.6	32.6	26.6	27.8	28.6	28.8
Latin America & Caribbean	78.5	79.5	70.8	60.8	55.1	50.0	40.9	35.8	33.4	31.8
Middle East & North Africa	83.1	88.3	83.7	79.1	72.2	61.2	50.1	43.6	37.1	33.8
South Asia	71.7	75.5	70.9	65.7	63.3	58.5	45.9	38.6	36.6	33.2
Sub-Saharan Africa	81.1	85.6	87.9	87.6	86.5	83.2	75.3	63.9	52.4	43.1
High Income	45.1	42.5	35.2	29.8	28.9	27.7	25.3	25.3	27.5	29.0
<b>65+</b>										
East Asia & Pacific	8.0	7.3	7.5	7.9	8.8	9.4	10.1	13.7	19.2	26.8
Europe & Central Asia	10.3	12.4	14.8	13.9	15.9	15.9	15.8	19.4	25.1	28.4
Latin America & Caribbean	7.3	7.9	8.0	8.0	8.3	8.3	8.9	11.4	15.6	20.4
Middle East & North Africa	6.7	7.5	6.8	6.4	6.9	6.8	6.6	8.3	11.3	14.7
South Asia	6.2	6.5	6.8	7.0	7.3	7.4	7.7	8.9	11.8	15.0
Sub-Saharan Africa	5.4	5.4	5.6	5.6	5.7	5.3	4.7	4.9	5.7	7.0
High Income	14.4	16.0	17.7	19.0	20.0	20.7	23.1	29.8	38.5	44.1
<b>0-14 &amp; 65+</b>										
East Asia & Pacific	78.7	81.1	70.8	54.4	51.9	50.4	43.2	44.7	49.8	57.8
Europe & Central Asia	59.7	58.7	55.1	54.5	53.6	48.6	42.4	47.2	53.6	57.2
Latin America & Caribbean	85.8	87.3	78.8	68.7	63.4	58.3	49.8	47.2	49.0	52.2
Middle East & North Africa	89.8	95.8	90.4	85.5	79.1	68.1	56.7	51.9	48.4	48.5
South Asia	78.0	82.0	77.8	72.7	70.6	66.0	53.6	47.6	48.3	48.2
Sub-Saharan Africa	86.5	91.1	93.5	93.3	92.2	88.5	80.1	68.8	58.1	50.2
High Income	59.5	58.5	52.9	48.8	48.9	48.4	48.4	55.1	66.0	73.1

\* Specified regions contain data for low- and middle- income countries only.

Source: The Statistical Information Management and Analysis System (SIMA), The World Bank; Bos (population projections)

**Table II.2 Total Fertility Rate (1962-2040)**

<b>Country</b>	<b>1962</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>1995</b>	<b>1996-00</b>	<b>2006-10</b>	<b>2016-20</b>	<b>2026-30</b>	<b>2036-40</b>
<b>Brunei</b>	6.72	5.62	4.04	3.28	2.84	2.60	2.08	2.08	2.07	2.07
<b>Cambodia</b>	6.29	5.81	4.68	4.93	4.66	4.50	3.66	2.78	2.29	2.23
<b>China</b>	7.55	5.78	2.54	2.10	1.92	1.90	1.90	1.99	2.08	2.14
<b>Hong Kong, China</b>	5.30	3.34	2.00	1.27	1.23	1.25	1.25	1.60	1.89	2.06
<b>Indonesia</b>	5.42	5.47	4.33	3.04	2.67	2.55	2.17	2.13	2.12	2.11
<b>Korea, Rep.</b>	5.40	4.27	2.56	1.77	1.75	1.70	1.70	1.87	2.02	2.12
<b>Lao PDR</b>	6.15	6.15	6.69	6.34	5.80	5.60	4.40	3.25	2.40	2.23
<b>Malaysia</b>	6.72	5.47	4.21	3.77	3.43	3.30	2.25	2.08	2.08	2.08
<b>Mongolia</b>	6.00	5.84	5.35	4.07	3.39	3.27	2.55	2.14	2.12	2.11
<b>Myanmar</b>	6.00	5.85	5.06	3.86	3.42	3.30	2.44	2.27	2.23	2.18
<b>Papua New Guinea</b>	6.29	6.13	5.70	5.13	4.81	4.63	3.72	2.74	2.22	2.18
<b>Philippines</b>	6.89	6.39	4.82	4.04	3.71	3.57	2.62	2.12	2.11	2.10
<b>Singapore</b>	5.20	3.09	1.74	1.87	1.71	1.71	1.71	1.85	1.98	2.07
<b>Thailand</b>	6.42	5.46	3.48	2.19	1.82	1.74	1.74	1.88	2.01	2.10
<b>Vietnam</b>	6.05	5.89	4.97	3.56	3.06	2.90	2.24	2.12	2.11	2.10

*Note:* Projections are the average of annual values for indicated period.

*Source:* World Development Indicators 1998 CD-Rom, The World Bank (Demographic Data from Bos et.al. 1994)

**Table II.3 Life Expectancy at Birth (Years)**

Country	1962	1970	1980	1990	1995	1995-99	2005-09	2015-19	2025-29	2035-39
<b>Brunei</b>	63.0	67.0	71.0	74.2	75.3	75.7	76.8	78.9	79.9	81.0
<b>Cambodia</b>	43.4	42.4	40.4	50.5	53.0	54.0	55.8	60.1	62.8	65.7
<b>China (excl. Taiwan)</b>	54.1	61.7	66.9	68.9	69.4	69.6	71.5	73.1	74.6	76.2
<b>Hong Kong, China</b>	66.5	69.4	74.1	77.6	78.5	78.7	79.5	80.9	81.6	82.4
<b>Indonesia</b>	42.5	47.9	54.8	61.7	64.2	65.1	68.3	70.9	72.6	74.4
<b>Korea, Rep.</b>	55.2	59.9	66.8	70.3	71.8	72.2	74.9	76.6	77.8	79.0
<b>Lao PDR</b>	40.4	40.4	45.0	50.0	52.5	53.5	57.0	60.2	62.6	65.2
<b>Malaysia</b>	55.8	61.6	66.9	70.5	71.7	72.0	72.6	74.6	76.0	77.5
<b>Mongolia</b>	48.2	52.7	57.7	62.7	64.9	65.8	69.7	72.2	73.8	75.5
<b>Myanmar</b>	45.0	48.9	52.1	56.6	59.1	60.1	59.2	63.7	66.3	69.0
<b>Papua New Guinea</b>	42.7	46.7	51.1	55.1	57.1	57.9	59.9	62.9	65.3	67.8
<b>Philippines</b>	54.5	57.2	61.1	64.4	65.6	66.3	69.3	71.7	73.3	75.0
<b>Singapore</b>	64.5	67.7	71.5	74.3	76.4	76.0	77.3	78.8	79.8	80.8
<b>Thailand</b>	54.0	58.4	63.5	68.4	69.0	69.1	67.1	70.5	72.4	74.5
<b>Vietnam</b>	46.0	55.3	63.2	66.6	67.7	68.1	69.6	71.8	73.4	75.2

Note: Projections are the average of annual values for indicated period.

Source: World Development Indicators 1998 CD-Rom, The World Bank (Demographic Data from Bos et.al. 1994)

**Table II.4 Population Growth Rates (five-year averages)**

Country/Region	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1995-00	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2030-35	2035-40
Brunei	4.56	4.66	4.28	3.63	2.89	2.84	2.69	2.01	1.6	1.31	1.25	1.19	1.04	0.85	0.65	0.49
Cambodia	2.45	2.44	0.46	-1.77	2.56	3.17	2.86	2.24	1.76	1.60	1.62	1.42	1.14	1.00	0.93	0.87
China	1.39	2.69	2.26	1.37	1.37	1.54	1.17	0.93	0.72	0.64	0.61	0.54	0.45	0.33	0.22	0.15
Hong Kong, China	3.73	1.31	2.02	2.89	1.59	0.89	1.52	2.34	0.66	0.35	0.27	0.19	0.09	-0.01	-0.18	-0.35
Indonesia	2.14	2.33	2.41	2.24	1.89	1.78	1.69	1.63	1.30	1.16	1.09	0.99	0.89	0.77	0.65	0.55
Korea, Rep.	2.64	2.25	2.00	1.55	1.36	0.99	0.97	0.91	0.77	0.60	0.49	0.38	0.29	0.22	0.13	0.02
Lao PDR	2.22	2.19	2.17	1.16	2.29	2.30	2.65	2.49	2.40	2.30	2.08	1.80	1.52	1.26	1.16	1.11
Malaysia	3.09	2.66	2.43	2.32	2.60	2.99	2.48	2.21	1.80	1.49	1.27	1.15	1.08	0.96	0.82	0.69
Mongolia	2.63	2.76	2.83	2.78	2.76	2.98	2.02	1.62	1.46	1.45	1.43	1.28	1.09	0.92	0.79	0.68
Myanmar	2.11	2.29	2.32	2.11	2.09	1.53	1.13	1.18	1.08	0.91	0.82	0.69	0.61	0.58	0.54	0.47
Papua New Guinea	2.24	2.40	2.39	2.46	2.18	2.18	2.27	2.22	2.08	1.83	1.61	1.36	1.14	1.06	1.01	0.93
Philippines	3.01	3.17	2.76	2.28	2.47	2.71	2.31	2.17	2.03	1.82	1.58	1.32	1.19	1.12	1.01	0.87
Singapore	2.87	1.91	1.73	2.27	1.69	1.71	1.98	1.86	1.14	0.63	0.55	0.48	0.38	0.23	0.03	-0.13
Thailand	2.99	3.08	2.92	2.44	1.81	1.67	1.32	0.83	0.72	0.66	0.66	0.56	0.45	0.36	0.28	0.20
Vietnam	1.97	2.17	2.34	2.23	1.84	2.36	2.21	1.43	1.26	1.28	1.27	1.17	1.00	0.84	0.71	0.61
East Asia & Pacific	1.68	2.69	2.35	1.60	1.56	1.69	1.37	1.12	0.92	0.82	0.78	0.70	0.60	0.49	0.38	0.30

*Note:* projections use averages of mid-year values

*Source:* The Statistical Information Management and Analysis System (SIMA), The World Bank

**Table II.5 Old Age Dependency Ratios\* (1960 - 2040)**

Country	1960	1970	1980	1990	1995	2000	2010	2020	2030	2040	Change, %	
											1960-1995	2000-2040
<b>Brunei</b>	6.8	5.7	4.5	5.0	5.6	6.2	6.7	14.3	24.9	27.7	-18.5	346.0
<b>Cambodia</b>	5.0	5.2	5.0	5.0	5.4	5.4	5.6	7.0	9.1	11.3	9.1	108.4
<b>China</b>	8.6	7.7	7.9	8.4	9.5	10.3	11.1	15.6	21.8	31.3	10.1	202.7
<b>Hong Kong, China</b>	5.0	6.7	9.5	12.0	14.2	15.0	16.1	26.5	47.4	57.2	185.1	282.6
<b>Indonesia</b>	5.9	5.6	6.0	6.4	7.0	7.0	8.4	10.3	14.6	19.2	17.8	174.0
<b>Korea, Rep.</b>	6.1	6.0	6.1	7.2	7.9	9.3	13.2	18.0	28.7	38.6	30.4	313.1
<b>Lao PDR</b>	4.5	4.6	5.1	5.6	7.2	6.4	5.7	5.5	6.6	7.8	61.5	20.4
<b>Malaysia</b>	6.7	6.6	6.4	6.4	6.7	6.7	7.6	10.2	14.5	18.6	1.1	176.2
<b>Mongolia</b>	6.0	5.7	5.5	7.4	6.7	6.5	6.3	7.1	11.9	17.2	12.4	165.9
<b>Myanmar</b>	6.1	6.8	7.1	6.8	7.0	7.5	7.3	8.0	11.4	15.7	13.2	109.3
<b>Papua New Guinea</b>	5.2	5.5	2.8	4.2	5.0	5.4	5.7	6.5	7.7	10.6	-3.8	95.5
<b>Philippines</b>	5.8	5.2	5.0	5.7	5.8	6.0	6.7	8.6	11.8	15.6	0.0	158.9
<b>Singapore</b>	3.9	5.8	7.0	7.6	8.8	9.8	12.4	22.4	38.8	45.6	129.1	365.1
<b>Thailand</b>	5.2	5.9	6.3	6.8	7.5	7.9	8.9	12.1	18.9	27.6	43.0	247.6
<b>Vietnam</b>	7.4	8.3	9.1	8.5	8.2	8.3	7.2	7.9	13.1	17.7	11.3	114.8
<b>East Asia &amp; Pacific</b>	7.9	7.3	7.5	7.9	8.8	9.7	11.0	15.7	19.9	29.7	10.4	205.4

\* population aged 65+ years/population aged 15-64 years

Source: World Development Indicators 1998 CD-Rom, The World Bank (Demographic Data from Bos et.al. 1994)

**Table II.6 Life Expectancy at Age 65 (Years)**

<b>Females</b>					
<b>Country</b>	<b>1995-99</b>	<b>2005-09</b>	<b>2015-19</b>	<b>2025-29</b>	<b>2035-39</b>
<b>Brunei</b>	..	..	..	..	..
<b>Cambodia</b>	12.5	12.3	13.1	13.9	14.6
<b>China</b>	14.6	15.2	15.9	16.9	17.9
<b>Hong Kong, China</b>	19.7	19.8	20.9	21.5	22.2
<b>Indonesia</b>	13.8	14.3	15.1	16.1	17.1
<b>Korea, Rep.</b>	16.0	17.6	18.7	19.5	20.3
<b>Lao PDR</b>	12.3	12.7	13.2	13.8	14.5
<b>Malaysia</b>	15.2	15.3	16.8	17.7	18.8
<b>Mongolia</b>	14.1	14.8	15.8	16.7	17.7
<b>Myanmar</b>	13.5	12.2	13.2	14.1	15.2
<b>Papua New Guinea</b>	12.2	12.4	13.0	13.8	14.6
<b>Philippines</b>	14.3	15.2	16.3	17.2	18.2
<b>Singapore</b>	17.5	18.5	19.6	20.4	21.1
<b>Thailand</b>	14.9	14.6	15.9	17.0	18.1
<b>Vietnam</b>	14.3	14.4	15.4	16.4	17.5

<b>Males</b>					
<b>Country</b>	<b>1995-99</b>	<b>2005-09</b>	<b>2015-19</b>	<b>2025-29</b>	<b>2035-39</b>
<b>Brunei</b>	..	..	..	..	..
<b>Cambodia</b>	11.4	11.1	11.6	12.1	12.7
<b>China</b>	13.4	13.7	14.3	14.9	15.7
<b>Hong Kong, China</b>	16.2	16.2	17.2	17.8	18.3
<b>Indonesia</b>	12.5	12.8	13.4	14.1	14.9
<b>Korea, Rep.</b>	12.8	13.8	14.7	15.4	16.2
<b>Lao PDR</b>	11.2	11.3	11.6	12.0	12.4
<b>Malaysia</b>	13.1	13.1	13.8	14.7	15.6
<b>Mongolia</b>	12.9	13.6	14.4	15.0	15.6
<b>Myanmar</b>	12.3	11.3	12.0	12.7	13.4
<b>Papua New Guinea</b>	11.4	11.5	12.0	12.5	13.1
<b>Philippines</b>	12.9	13.6	14.6	15.3	16.0
<b>Singapore</b>	14.7	15.5	16.4	17.0	17.6
<b>Thailand</b>	12.7	12.5	13.1	13.9	14.7
<b>Vietnam</b>	12.6	12.6	13.2	14.0	14.8

*Note:* The projections are the average of annual values in the indicated period.

*Source:* Bos et.al. 1994

**Table II.7 Percentage of Population Residing in Urban Areas**

<b>Country</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>
<b>Brunei</b>	43.4	61.7	59.9	65.8	69.2	72.2	76.9	80.1	82.6
<b>Cambodia</b>	10.3	11.7	12.4	17.5	20.4	23.5	29.7	36.2	42.8
<b>China</b>	16.0	17.4	19.6	26.2	30.2	34.3	42.3	49.1	55.2
<b>Hong Kong, China</b>	85.0	87.7	91.5	94.1	95.0	95.7	96.4	96.8	97.2
<b>Indonesia</b>	14.6	17.1	22.2	30.6	35.4	40.2	48.9	55.4	61.0
<b>Korea, Rep.</b>	27.7	40.7	56.9	73.8	81.3	86.2	91.2	92.7	93.6
<b>Lao PDR</b>	7.9	9.6	13.4	18.1	20.7	23.5	29.5	36.0	42.6
<b>Malaysia</b>	26.6	33.5	42.0	49.7	53.6	57.3	63.6	68.5	72.5
<b>Mongolia</b>	35.7	45.1	52.1	58.0	60.8	63.5	68.4	72.4	76.0
<b>Myanmar</b>	19.2	22.8	24	24.6	25.8	27.7	33.4	40.0	46.6
<b>Papua New Guinea</b>	2.7	9.8	13.0	15.0	16.0	17.4	21.2	26.7	33.0
<b>Philippines</b>	30.3	33.0	37.5	48.8	54.0	58.6	65.5	69.9	73.8
<b>Singapore</b>	100	100	100	100	100	100	100	100	100
<b>Thailand</b>	12.5	13.3	17.0	18.7	20.0	21.6	26.2	32.5	39.1
<b>Vietnam</b>	14.7	18.3	19.2	19.7	19.4	19.7	22.1	27.3	33.7

*Source:* World Development Indicators 1998 CD-Rom, The World Bank; UN World Urbanization Prospects: The 1996 Revision.

Table II.8 GDP and Employment by Sector (%), 1996

Country	Value Added (% of GDP)			Employees, Female (% of EAP)			Employees, Male (% of EAP)		
	Agriculture	Industry	Services	Agriculture	Industry	Services	Agriculture	Industry	Services
Brunei	..	..	..	1.6	8.9	89.4	2.2	31.7	66.1
Cambodia	50.4	14.7	35.0	78.3	7.5	14.2	68.7	7.5	23.9
China	20.2	49.0	30.8	76.1	13.4	10.6	69.1	16.5	14.4
Hong Kong, China	0.1	15.5	84.4	0.7	33.0	66.3	1.0	39.0	60.0
Indonesia	16.2	42.4	41.4	56.4	12.5	31.0	54.4	14.3	31.3
Korea, Rep.	6.3	42.9	50.8	20.0	29.5	48.7	16.3	37.6	43.3
Lao PDR	51.9	20.5	27.6	80.9	5.0	14.1	75.7	7.4	16.9
Malaysia	12.8	46.2	41.0	25.6	22.7	51.8	28.3	23.4	48.3
Mongolia	30.9	35.4	33.7	30.3	22.0	47.8	33.5	23.0	43.5
Myanmar	58.6	10.1	31.2	77.5	8.7	13.7	70.0	10.7	19.3
Papua New Guinea	26.3	40.4	33.3	88.8	2.8	8.4	72.4	9.1	18.4
Philippines	21.4	31.7	46.9	30.8	13.6	55.6	54.4	16.3	29.3
Singapore	0.2	35.7	64.2	..	..	..	..	..	..
Thailand	11.0	39.5	49.5	62.8	11.9	22.0	61.6	15.2	20.8
Vietnam	27.2	30.7	42.1	73.1	10.9	16.0	69.5	17.1	13.4
East Asia & Pacific	19.4	44.8	35.8	..	..	..	..	..	..

Source: World Development Indicators 1998 CD-Rom, The World Bank



**Table II.9 GDP Growth (%), Constant Prices, 1970-2000**

Country	1970-74*	1975-79	1980-84	1985-89	1990-94	1995	1996	1997	1998	1999	2000
Brunei	..	..	..	..	..	..	..	..	..	..	..
Cambodia	..	..	..	..	5.8	7.7	7.0	1.0	1.0	4.01	..
China	8.9	5.4	9.3	9.9	10.7	10.5	9.6	8.8	7.8	7.1	6.5
Hong Kong, China	8.5	10.2	7.8	6.9	5.3	3.9	4.5	5.3	-5.1	2.9	4.8
Indonesia	8.4	6.9	5.0	5.6	8.0	8.2	8.0	4.5	-13.2	0.2	3.5
Korea, Rep.	8.6	9.0	6.3	9.5	7.6	8.9	6.8	5.0	-6.7	10.7	6.5
Lao PDR	6.1	1.3	7.9	4.2	6.3	7.1	6.9	6.5	5.0	6.5	..
Malaysia	8.3	7.2	6.9	4.8	8.7	9.8	10.0	7.5	-7.5	5.4	5.8
Mongolia	6.0	6.0	7.0	6.3	-5.0	6.3	2.6	4.0	3.5	3.5	4.5
Myanmar	1.6	5.6	5.9	-2.0	4.9	7.2	7.0	7.0	7.0	..	..
Papua New Guinea	7.4	0.6	0.6	2.6	7.9	-2.9	3.5	-5.4	3.8	6.1	..
Philippines	5.7	6.6	1.3	2.7	1.9	4.7	5.9	5.2	-0.5	3.2	4.5
Singapore	11.5	7.6	8.6	6.2	8.9	8.0	7.5	8.4	0.4	5.3	6.0
Thailand	6.2	7.8	5.7	9.0	9.0	8.9	5.9	-1.8	-10.4	4.2	5.0
Vietnam	2.9	7.2	5.2	4.9	7.3	9.5	9.3	8.2	3.5	3.5	5.5

\* simple average for grouped periods

Source: The World Economic Outlook Database, April 2000, The International Monetary Fund

Table II.10 Poverty Reduction in East Asia, Summary Statistics, 1975-95

Economy	People in poverty (million)			Head-count Index (percent)			Poverty Gap (percent)		
	1975	1985	1995	1975	1985	1995	1975	1985	1995
<b>East Asia<sup>a</sup></b>	<b>716.8</b>	<b>524.2</b>	<b>345.7</b>	<b>57.6</b>	<b>37.3</b>	<b>21.2</b>	<b>n.a.</b>	<b>10.9</b>	<b>6.4</b>
<b>East Asia (exc. China)</b>	147.9	125.9	76.4	51.4	35.6	18.2	n.a.	11.1	4.6
<b>China</b>	568.9 <sup>b</sup>	398.3	269.3	59.5 <sup>b</sup>	37.9	22.2	n.a.	10.9	7.0
<b>Indonesia</b>	87.2	52.8	21.9	64.3	32.2	11.4	23.7	8.5	1.7
<b>Lao PDR<sup>d</sup></b>	n.a.	2.2	2.0	n.a.	61.1	41.4	n.a.	18.0	9.5
<b>Malaysia</b>	2.1	1.7	0.9	17.4	10.8	4.3	5.4	2.5	< 1.0
<b>Mongolia</b>	n.a.	1.6	1.9	n.a.	85.0	81.4	n.a.	42.5	38.6
<b>Papua New Guinea</b>	n.a.	0.5	1.0 <sup>c</sup>	n.a.	15.7	21.7 <sup>c</sup>	n.a.	3.7	5.6 <sup>c</sup>
<b>Philippines</b>	15.4	17.7	17.6	35.7	32.4	25.5	10.6	9.2	6.5
<b>Thailand</b>	3.4	5.1	< 0.5	8.1	10.0	< 1.0	1.2	1.5	< 1.0
<b>Vietnam</b>	n.a.	44.3 <sup>c</sup>	31.3	n.a.	74.0 <sup>c</sup>	42.2	n.a.	28.0 <sup>c</sup>	11.9

n.a.: not available.

Notes: All numbers in this table (except for Lao People's Democratic Republic) are based on the international poverty line of US\$1 per person per day at 1985 prices.

a.: includes only those countries presented in the table.

b.: Data relates to 1978 and applies to rural China only.

c.: Data relates to 1996.

d.: Available data on Purchasing Power Parity exchange rates and various price deflators for Lao People's Democratic Republic are not very reliable and lead to anomalous results. The poverty numbers for the country in this table are based on a national poverty line related to the level of food consumption yielding an energy level of 2,100 calories per person per day and a non-food component equivalent to the value of non-food spending by households that are just capable of meeting their food requirements. The US\$1-a-day poverty line relates to characteristic poverty lines in low income countries that have a comparable basis in food and non-food consumption needs; the poverty numbers for Lao PDR are, therefore, not strictly comparable to those for other countries.

e.: The figures refer to 1984. "Vietnam Household Welfare in Vietnam's Transition" in Macroeconomic Reform and Poverty Reduction, edited by D. Dollar, J. Litvack, and P. Glewwe. World Bank Regional and Sectoral Study, 1998.

Source: *Everyone's Miracle?*, World Bank 1997.

**Table II.11 Pension Scheme Coverage (Publicly Mandated and Government Schemes)**

Country	Population	Labor Force	Public Sector	Public Sector	Coverage (% of Labor Force)		
	('000),	('000),	Employment <sup>a</sup>	as % of	Public Sector <sup>e</sup>	Private Sector <sup>d</sup>	Total
	1994 <sup>*</sup>	1994	('000)	Labor Force <sup>d</sup>	(Cont./Lab. Force)		
	(1)	(2)	(3)	(4) = (3)/(2)	(5)	(6)	(7) = (5)+(6)
<b>Brunei</b>	281	117	..	48.0	.. <sup>f</sup>	<50.0	<50.0
<b>China</b>	1,190,918	702,540	36,939	5.3	5.3	12.3 <sup>k</sup>	17.6
<b>Hong Kong, China</b>	6,035	3,139	200	6.4	6.4	0.0 <sup>l</sup>	6.4
<b>Indonesia</b>	190,848	86,662	4,225	4.9	4.9	10.6	15.5
<b>Korea, Rep.</b>	44,453	21,205	983 <sup>b</sup>	4.6	4.6	46.5	51.1
<b>Malaysia</b>	19,658	7,820	984	12.6	10.5 <sup>g</sup>	50.0	60.5
<b>Mongolia</b>	2,402	1,153	21 <sup>c</sup>	1.8	1.8	50.0	51.8
<b>Papua New Guinea</b>	4,202	2,059	60	1.8	1.8	5.5	7.3
<b>Philippines</b>	68,661	28,064	1,570	5.6	7.3 <sup>g</sup>	21.0	28.3
<b>Singapore</b>	2,930	1,425	112	7.9	.. <sup>h</sup>	65.3	65.3
<b>Thailand</b>	58,718	33,647	2,400	7.1	7.1 <sup>i</sup>	18.0	25.1
<b>Vietnam</b>	72,510	36,980	2,909	7.9	7.9	1.2	9.1

a. early 1990s; includes government administration (central and non-central government), social sectors (education and health), armed forces, but not employees of state-owned enterprises (SOEs); b. does not include armed forces; c. only includes armed forces; d. values differ slightly from those in Schiavo-Campo et.al. (1997b) due to use of updated labor force figures; e. coverage of public sector is assumed to be full (i.e., 100%), except where noted; f. the Government Pension Scheme is being phased out while public employees begin contributing to the Employees' Trust Fund; g. figures are for 1997; h. government employees are shifting to the main publicly mandated scheme, the Central Provident Fund, with only some holdovers and new officers in the designated pensionable services (administrative, senior police and intelligence) and political appointees still participating in the government employee scheme; i. DB plan replaced in 1997 by voluntary government pension fund; a new pension fund for certain categories of armed services personnel will be initiated soon; j. includes employees of SOEs, and coverage refers only to main mandatory public scheme (i.e., does not include private/occupational schemes); k. China has a voluntary rural pension system with very low benefits that covers another 8% of the labor force (60 million) that is not included in this figure; l. private occupational schemes are quite significant.

Sources: (1) and (2) SIMA (LDB Central) database, The World Bank; (3) Schiavo-Campo et.al., 1997b; Knodel et.al., 1999 for Thailand; author estimate for Papua New Guinea; (4) Brunei Darussalam Country Profile (Annex B) for Brunei figure; (5) Malaysia, China and Singapore - Country Profiles (Annex B); (6) Country Profiles (Annex B); The World Bank 1996 for China figure.

**Table II.12 Prevalence of Family Support for the Elderly (60 or older) in Selected Countries (%), mid 1990s**

Support Parameters	Philippines	Singapore			Taiwan	Thailand	Vietnam	
		Chinese	Malay	Indian			Red River Delta	HCMC & environs
Demographic								
with no living (adult) child	4.5	4.1	3.2	7.2	5.0	4.5	2.1	5.6
with no non-coresident child	8.4	15.9	17.0	22.4	11.0	9.1	..	..
Among respondents with 1+ (adult) child								
coresidence	70.6	89.3	91.6	78.2	71.7	72.5	74.0	85.9
Among respondents with 1+ non-coresident child								
quasi-coresidence <sup>a</sup>	53.2	..	..	..	28.3	64.7	..	..
monetary support <sup>b</sup>								
- any amount	86.6	87.5	84.1	57.0	..	88.1	..	..
- substantial amount <sup>c</sup>	46.4	..	..	..	..	69.1	..	..
material support <sup>b</sup>	88.7	86.0	89.8	65.9	..	89.2	83.9	72.2
social contact <sup>d</sup>								
- weekly or more	57.8	65.0	65.1	50.5	65.6	75.6	..	..
- monthly or more	72.3	92.9	89.7	79.6	84.0	88.3	..	..

.. not available; HCMC – Ho Chi Minh City

a. lives adjacent or near enough to have daily contact; b. refers to the previous year, except for Singapore (previous six months); material support refers only to food in Singapore and food and clothes in Vietnam; c. around US\$ 40.00; d. for Philippines, Taiwan and Thailand, social contact refers to visits in either direction; for Singapore, contact includes visits, phone calls or letters.

Source: Chan, 1997; Cuong et.al., 1999; Ofstedal et.al., 1999

**Table II.13 Levels and Trends in Living Arrangements Among the Elderly (60 or older)**

Country and year	Nature of sample	% living with any child (with or without others)	% living alone	% living only with spouse
Philippines				
1986	Subnational	74	3	5
1988	National	68	4	10
1996	National	69	6	8
Singapore				
1988	National	88	2	3
1995	National	85	3	6
Thailand				
1986	National	77	4	7
1990	National	77	..	..
1994	National	73	..	..
1995	National	71	4	12
Vietnam				
1994	National (Inter-censal survey)	77	..	..
1996	Red River Delta	74	7	13
1997	Ho Chi Minh City and environs	82	5	5

.. not available

Source: Knodel and Debavalya, 1997; Cuong et.al., 1999; Knodel and Chayovan, 1997

Table II.14 Old-Age Income Support Programs in Selected Countries of East Asia and the Pacific, 1999

Country	Basic Income Support/Safety Net		Private Sector Pension Scheme		Public Sector Pension Schemes	Private/Occupational Schemes
	Social Assistance	Demogrant	Social Insurance	Provident Fund		
<b>Brunei Darussalam</b>	Discretionary payments from the Ministry of Welfare, Youth and Culture and the Ministry of Religious Affairs	Old Age pension		Employee's Trust Fund (ETF, since 1993)	Government Pension Scheme - DB, NC	Some schemes provided in addition/as alternative to ETF
<b>China</b>	Subsidies; emergency social relief		Basic Old Age Pension; rural pension for 60m through Civil Affairs Department		Civil servants	Very limited supplementary occupational pensions; retirement savings accounts
<b>Hong Kong</b>	Comprehensive Social Security Assistance Scheme (CSSA)	Social Security Allowance Scheme (SSAS)		Mandatory Provident Fund (MPF, since 2000)	For civil servants, teachers and judiciary - DB	Some enterprise schemes, usually DC
<b>Indonesia</b>	Emergency assistance (disaster relief and social unrest)			JAMSOSTEK	TASPEN (public sector); ASABRI (military and police) - both DB, C	Large state companies and multinationals
<b>Korea, Rep.</b>	Public Assistance Program - low flat-rate benefits for needy elderly; other in-kind assistance		National Pension Scheme (NPS, since 1988)		For civil servants, military and private teachers - DB, C	Mandated retirement allowance/severance payment; Some enterprise schemes
<b>Malaysia</b>	Minimal provisions from the Ministry of National Unity and Community Development			Employee's Provident Fund (EPF)	Pensions Trust Fund - DB, NC; Armed Forces Fund - PF (LS)	Some company schemes have retirement allowance (LS)
<b>Mongolia</b>	Supplemental benefits for pensioners, some social assistance to elderly		Pension Insurance Fund, mandatory for formal sector; switch to notional accounts and partial funding in 2000		Pension Insurance Fund, but government contributes at a rate of 17.9%, while employees contribute only 1.1%	
<b>Papua New Guinea</b>	Safety net programs for certain vulnerable groups, but no specific programs for elderly			National Provident Fund	Public Officers Superannuation Fund; Defense Force Retirement Benefit Fund	Some companies have gained exemption from NPF and have set up their own funds
<b>Philippines</b>	No government cash payments, but in-kind assistance through programs of the Department of Social Welfare & Development		Social Security System (SSS)	Pag-IBIG (for housing and savings)	Government Service Insurance System (GSIS) - social insurance	Mandated retirement allowance; Large employer voluntary plans
<b>Singapore</b>	Limited public assistance to destitute aged (with strict means-testing); Maintenance of Parents Law			Central Provident Fund (CPF)	Government Employee Scheme and Pension Fund; Armed Forces "Saver Scheme"	
<b>Thailand</b>	Minimal assistance through the Department of Public Welfare to indigent elderly in rural areas (318,000 persons)		Old Age Pension Scheme (to be implemented 1999)	Provident Fund Act of 1987 - usually foreign owned and large local companies (voluntary)	DB plan replaced in 1997 by voluntary Government Pension Fund	
<b>Vietnam</b>	In 1993, redistribution scheme for cooperatively held land benefited the elderly, providing assets/means of production at subsistence level		Social insurance scheme, mandatory for all non-state employees in enterprises with 10+ employees		Mandatory participation in PAYGO for state sector; special schemes for civil servants, military	

Notes: (for Public Sector, Private/Occ. Schemes): DB - Defined Benefit; DC - Defined Contribution; NC - Non-contributory; C - Contributory; PF - Provident Fund; LS - Lump Sum; Source: Annex B.

**Table II.15 Features of Main Mandatory Pension Schemes in Selected Countries of East Asia and the Pacific**

Country	Design						Performance				
	Retire- ment Age: Male/ Female	Length of Service for Pension (years)	Contribution Rates (% of salary) (rates apply to salary level that does not include employer's share of contributions)			Indexation of Benefits	Tax Treatment	Benefit Type	Average Replace- ment Rate (%)	Real Rate of Return on Investment	Admin. Costs
			Employee	Employer	Combined						
<b>Brunei Darussalam</b>	55 (50)	-	5	5	10	-	EEE	PF (LS)	..	negative	high
<b>China</b>	60/55*	5-15	4<	15-30	20 (ave.)	nominal wage (40-80%)	TEE	DB	60-102 80-90	Often negative	high
<b>Hong Kong</b>	65 (60)	-	5	5	10	-	EEE	PF (LS)	30-40 (proj.)	-	should be efficient
<b>Indonesia</b>	55	-	2	3.7	5.7	..	EET	PF (LS)	10 (est.)	poor	high
<b>Korea, Rep.</b>	60*	20	4.5	4.5	9	prices	TEE	DB	60 (proj.)	poor	..
<b>Malaysia</b>	55 (50)	-	11	12	23	-	EEE	PF (LS)	20-25	3.44 (simple average 1961-97)	low
<b>Mongolia</b>	60/55	20	5.5	13.5	19	none	EEE (?)	DB	39	..	..
<b>Papua New Guinea</b>	55	-	5	7	13	..	..	DB (LS)	..	poor	..
<b>Philippines</b>	60	10	3.33	5.07	8.4	ad-hoc	EEE	DB	89	poor	high
<b>Singapore</b>	62	-	20	10	30	-	EEE	PF (LS/ annuity)	20-30	2 (simple ave. 1960 - present)	low
<b>Thailand</b>	55	15	2	2	5 <sup>a</sup>	..	EEE	DB	15 (proj.)	poor	..
<b>Vietnam</b>	60/55	20	5	15	20	wages	EEE	DB	69	poor	medium

- Not Relevant

.. Not Available

PF - Provident Fund; LS -Lump Sum; DB - defined benefit; ER - earnings related; EEE - exempt, exempt, exempt; EET - exempt, exempt, taxed; TEE - taxed, exempt, exempt

\* unspecified early retirement provision; ( ) age of early retirement

<sup>a</sup> Government currently contributes 1%. Tripartate contributions to increase gradually to 3% each (total of 9%).





## **Annex B: Individual Country Profiles**



## **Brunei Darussalam\***

### **Overview of Formal Old-Age Support**

The Employee Trust Fund (ETF), a national provident fund, is Brunei's main program of formal retirement income provision. As of January 1, 1993 all new and non-pensionable government employees started contributing to the ETF, while all private sector employees began contributing one year later. Participation in the ETF scheme is compulsory citizens and permanent residents of Brunei, but foreign workers, all security personnel and those over age 55 are exempt. The contribution rate is 10% of the wage bill, divided equally between employees and employers. Since the scheme is still very young, it is accumulating reserves and has paid out very little in benefits.

The retirement withdrawal age is generally 55 years. However, one quarter of accumulated savings may be taken at age 50. Those who become incapacitated or emigrate are eligible to receive their balances immediately. All withdrawals are on a lump sum basis. Additionally, up to a maximum of 45% of the accumulated balances may be withdrawn for purchasing or building a house.

Since 1959, government employees have enjoyed a non-contributory, defined benefit scheme, the Government Pension Scheme (GPS), financed entirely through public revenue. Retirement age is normally 55 years, although in some cases, it is age 50 for males and age 45 for females. Government employees are either pensionable or not pensionable. The latter category receives gratuity, while the former may receive full pension or a combination of reduced pension and gratuity.

The GPS pension formula is structured in such a way that the replacement rate, based on the last drawn salary, rises with the length of service, with a ceiling of 75%. Eligible employees may choose to receive a reduced lump-sum pension (usually 75% of the full amount) and a gratuity. The gratuity benefit amounts for non-pensionable employees vary according to the type of appointment (e.g., temporary vs. permanent), length of service, and either the average salary for the last three years of service or the last salary drawn. In general, replacement rates are on the generous side, particularly considering that the retirement age at 55 is quite low in relation to life expectancy at birth of 75 years.

The last type of formal old age support is a safety net. The government pays a demogrant of B\$ 150 per month to citizens and eligible permanent residents.<sup>1</sup> Normally, 30 years of residence is required for eligibility. The amount of pension has remained unaltered since 1984, which has resulted in significant erosion of its real value. About 10,000 individuals, or 80% of the eligible population, receive it. The social welfare unit of the Ministry of Culture, Youth and Sports also administers assistance schemes for blind, mentally ill, and handicapped persons. The amount of transfers and number of beneficiaries are quite small. Additionally, 600 people, deemed to be very poor, are paid additional welfare assistance of B\$ 75 per month.

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\* Mukul G. Asher, National University of Singapore (mppasher@nus.edu.sg) prepared this profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

<sup>1</sup> In 1997 B\$ 1.48 equalled US\$ 1.00.

## **I. Background**

Brunei Darussalam is located in the northwestern portion of Borneo facing the South China Sea. In 1998, it had a population of 320,000, the smallest among members of the Association of Southeast Asian Nations (ASEAN).

The country's economy is largely dependent upon the global oil economy – although the share of the oil and gas sector in GDP declined from 59.6% in 1986 to 36.0% in 1995 – and investment income from overseas assets of the state (Market Intelligence Asia, 1996).<sup>2</sup> In 1997 Brunei's GNP was US\$ 7.2 billion. Its per capita GNP is high (US\$ 25,090 in 1997); however, it declined by 1.5% annually during the 1990-96 period, likely as a result of falling oil and gas prices in world markets (International Finance Corporation, 1998). The outlook for the global oil economy is for continuation of the weak prices. In addition, the Southeast Asian economic crisis has adversely affected Brunei through weak demand for its major exports, mainly oil, and lower or negative returns on its investments in the region.

The main employer in Brunei has traditionally been the government, but it has recently attempted to increase employment in the private sector. Total employment in the mid-1990s was 112,000, with about half of the total in "Community, Social and Personal Services" (which includes government) (Borneo Bulletin Brunei Year Book, 1997). Although exact numbers are not available, it appears that foreign workers constituted more than 40% of the labor force in the mid-1990s (Market Intelligence, 1996).

According to the 1991 census, Brunei had a relatively young population.<sup>3</sup> Individuals between 6-15 years of age comprised more than one-third of the population, and the median age of the female population was about 23 years (Market Intelligence Asia, 1996). Those over 60 years of age numbered around 11,000, or roughly 4.0% of the population. The population growth rate is approximately 3% per year. Brunei will soon face rapid population aging, but it currently possesses exceptional opportunities to harness pension pre-funding.

## **II. Analysis of the Pension System**

### **Benefits Provision**

Total cumulative contributions and withdrawals from the ETF's inception up to November 30, 1997 amounted to B\$ 201.3 million and B\$ 5.5 million respectively. The average

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<sup>2</sup> There is no differentiation made between the financial resources of the sultan and his family on the one hand, and state assets on the other.

<sup>3</sup> Two-thirds of Brunei's population are Malays, and the rest include other indigenous peoples (6%), Chinese (about 19%), and other ethnic groups (9%). Social indicators are good: life expectancy at birth was 73 years for males and 77 years for females in 1996, and literacy was 88%.

monthly contribution and withdrawal is around B\$ 5 million and B\$ 0.2 million respectively. The withdrawal amount should increase over time as more individuals reach 55 years of age and as accumulated balances increase.

In 1993, total expenditure under the GPS was B\$ 75.1 million, of which B\$ 48 million, or 63.9%, of the total was gratuities (Market Intelligence Asia, 1996). Overall, this represented 77% of the total government expenditure on social security (B\$ 97.8 million). The Universal Old Age Pension (demogrant scheme) accounted for most of the remainder.

### **Coverage**

As of November 30, 1997 (the latest period for which the data are available), total membership of the ETF was 57,897. Nearly two-fifths of the members were between 21 and 30 years of age, and only about one-fifth was over 40 years of age, reflecting the relatively young profile of the labor force. It is not clear what proportions of the members are active contributors. Even if all members were regarded as contributors, the ETF would cover only around half of the labor force. The profile of the uncovered workers is not available, but many are foreign workers who are legally exempt.

### **Administration, Investment Policies and Performance, and Taxation**

A Board of Directors, appointed bi-annually by his Majesty the Sultan, runs the ETF. There are 12 board members, including two from the private sector, and the Minister of Culture, Youth and Sports chairs the Board. The Board indicates a Managing Director to execute day-to-day duties associated with the fund's operation. The Ministry of Finance handles decisions concerning administrative and financial matters. Thus, the ETF is essentially a governmental organization with little autonomy.

Section 6(1) of the Emergency Order of 1992 (*Tabung Amanah Pekarja*) provides the investment guidelines for the fund. These limit the allocation of fund monies to deposits with banks approved by the Board or investments in property and financial tools authorized by the government. Brunei does not have a stock market. While recent data are unavailable, most of the investments appear to be in fixed deposits with a handful of locally operating banks, including Citibank, Hong Kong Bank and Standard Chartered Bank. This suggests little diversification in investment according to type of asset and geographical area. Little data on investment returns or dividend (or interest) credited to member accounts are available. However, while the return on fixed deposits averages around 3%, dividends in 1993 and 1994 were at a rate of 1.5%. Thus, it seems likely that not all returns obtained are passed on to the members. It is not clear whether the uncredited balances are kept in reserve or returned to the government.

One of the ETF's greatest challenges is to increase the dividend on savings above the inflation rate. It is likely that in recent years the dividend rate has been negative in real terms. If this is indeed the case, then the ETF is unlikely to provide an adequate replacement rate for its members. If this trend continues, those required to shift from the GPS to the ETF are likely to be considerably worse off. Not only will they have to contribute to their retirement benefits, but they will also be unable to take advantage of compound interest to accumulate balances for their retirement.

Brunei does not levy personal income tax, and contributions by the employers are tax deductible.

### **III. Reform Issues and Options**

By shifting from a non-contributory pension (and gratuities) system for government employees to a defined contribution (DC) scheme covering both private and public sector employees, policymakers have already taken an important step towards creating a sustainable social security system for Brunei.

The main challenges for the policymakers lie in the following areas:

- Benefits Planning. There is a need to review the practice of providing lump-sum payment at age 55. Some form of periodic payments is likely to be more consistent with the rationale of mandatory participation in the ETF. The government should determine an array of options through an empirical study. Singapore's practice of requiring a minimum sum to be set aside at retirement with monthly withdrawals permitted only after age 60 may merit consideration.

At present, the government provides health care and education services free of charge. With respect to health care, it might be possible to use the ETF to move to a more mixed financing system, which could take effect gradually. However, the government should be careful with the introduction of other types of benefits schemes under the ETF. Not only could additional schemes increase complexity, but they could also require higher contribution rates, which in turn could impinge on Brunei's international competitiveness.

To improve social adequacy, the government should also consider periodic adjustments to the nominal amounts under the Old Age Pension and related schemes. These amounts, unrevised since 1984, currently do not provide a reasonable replacement rate.

- Investment Function. As noted, the investment portfolio of the ETF is extremely conservative. The long-term liabilities of the ETF do not match the relatively short-term duration of the fixed deposits. The fact that there is no stock market in Brunei also limits

its options. Therefore, it may need to choose between investing the accumulated balances to provide maximum feasible returns to its members (consistent with prudential guidelines) or using them domestically to build up the financial sector and capital markets. The trade-offs between the two options need to be recognized, and appropriate policies should be devised. As with the housekeeping function, contracting-out the investment function, albeit with prudential guidelines and monitoring, may merit careful consideration of the policymakers.

- Housekeeping Function. The ETF, which currently performs housekeeping, could consider the following options to improve performance: (i) invest in information technology and human resources to strengthen relevant activities (contribution collection, record keeping, administration, benefit payments, etc.), or (ii) explore the feasibility of contracting out the function to a specialized private sector firm. Without a detailed study the preferred option is unclear.

It would also be desirable to ensure regular publication of the basic data relating to ETF operations: number of members; active contributors; their contributions, withdrawals, and balances; investment portfolio on both cost and market basis; returns obtained; etc.

In conclusion, Brunei has taken the most important step of moving from a non-contributory, rather generous, defined benefit government pension scheme to a defined contribution scheme under the ETF. However, there are several challenges relating to the housekeeping, benefits planning, and investment functions of the DC scheme that the policymakers need to address. Meeting these challenges will require a focus on managerial and technocratic aspects of the ETF and other social security schemes. If this is done, the prospects appear good for achieving a socially adequate, economically less distortionary, fiscally sustainable, and internationally competitive social security system in Brunei.

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## People's Republic of China\*

### Overview of Formal Old-Age Support

China established its first formal pension system in 1951 under the Labor Insurance Provisions. The Cultural Revolution (1966-76) saw the system dismantled, and enterprises began to handle benefits for their own employees. After 1976, China began to reestablish a social insurance system, gradually shifting welfare obligations from state-owned enterprises (SOEs) to government-run funds and to the workers themselves. Currently, the social security system consists of social insurance (funds for pensions, medical treatment, unemployment, workers' compensation and housing); social welfare (subsidies for living expenses, which the government provides to cushion the effects of price reform); social relief (safety net programs for the poor, elderly and handicapped, as well as disaster victims).

All urban enterprises must contribute to a social insurance fund once the local people's congress has passed appropriate plans. Substantial differences in the basic parameters of the pension system at the local and provincial levels have resulted from government experimentation in reform and considerable SOE responsibility in establishing pensions. In practice there is large variation in contribution rates among the provinces (ranging from 15-30% for the employer contribution – employee contribution normally does not exceed 4%), minimum length of service for eligibility (5-15 years), and replacement rates (65-102%). However, the retirement age stands uniformly at 60 years for men (65 at executive level) and 55 years for women (50 for blue-collar workers).

Currently, the principal reform goal is to substitute the old system that requires individual urban enterprises to provide all welfare benefits to their employees with a three-pillar system that distributes the burden more equitably among enterprises and workers. State Council Document 26 reaffirms previous decisions to establish a unified mandatory pension system by the year 2000 that would replace pilot programs in individual provinces and eliminate the corresponding variation. In fact, the program calls for the “four unifications” – in the system, standards, management, and fund usage – applicable to all types of enterprises and workers. The system will combine social pooling and individual accounts (both mandatory and private). Social pooling will allow for redistribution through a basic old-age pension preventing retirees from falling below the poverty line. At the same time, fund accumulations in the mandatory individual accounts will be converted to a 10-year annuity, but the social pool will continue to pay pensions for people who live longer than this.

All provisions will be standardized, formulated and stipulated under the social insurance law. A central administrative agency will have clearly identified responsibilities with respect to each level of government, and a legal framework for managing the pension system will separate the administrative and investment management functions. Enterprise contributions are not to exceed 20% of the wage payroll for the pay-as-you-go and funded pillars combined. Individual employee contributions (to the funded pillar only) had to be at least 4% of wages in 1997, increasing by 1% in 1998, and then 1% every two years thereafter until the contribution rate reaches 8%. As individual contributions increase to 8%, enterprise contributions will gradually decrease to 3%.

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\* Yvonne Sin, The World Bank, HDNSP (ysin@worldbank.org) prepared this profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

## **I. Background**

Over the past two decades China has moved from an economy based on central planning within a communist political framework to a socialist market economy with a large state-owned sector. China's economic reforms since 1978 have resulted in sustained positive performance. From 1979 to 1997, the country's GDP quadrupled, with the annual growth rate averaging 9.8%. Growth has been particularly pronounced in coastal areas near Hong Kong and across from Taiwan, where foreign investment has helped stimulate the production of domestic and export goods. Its inflation rate has averaged less than 10% a year, although a high of 25% was recorded in one year. The incomes of both urban and rural residents increased steadily,<sup>1</sup> and living standards continued to improve. Poverty declined substantially, by more than half between 1975 and 1995, from 569 million to 269 million persons. With a savings rate of more than 40% of GDP, an export growth rate exceeding 15% a year in current dollars, and foreign exchange reserves of over \$100 billion, China is in a strong economic position. This economic advantage is expected to help it bear the costs of transition, including those of pension reform.

Over the past three decades, China's fertility experienced a sharp decline. The total fertility rate decreased from 5.72 in 1970 to 1.91 in 1996. This decline was very significant compared to the experience of some developed economies with low fertility. The rapid decline in fertility owes to strict family planning policies and the one-child policy of the late 1970s and 80s.

Better living conditions and improved availability of medical services have contributed to a reduction in mortality and extension of life expectancy in both rural and urban areas. Similar to many of the developed countries, China has enjoyed a continuous improvement in life expectancy over the past two decades. The reduction in age-sex-specific mortality rates has resulted in an increase in life expectancy at birth from 61 years in 1970 to over 69 in 1995.

Decreased fertility and the rise in longevity have contributed to the "old age problem." The percentage of older persons in the total population has been increasing continuously, at a time when the median age of the population is also rising steadily. Moreover, the aging process is expected to accelerate in the coming decades as the large numbers of baby boomers born between the early 60s and mid-70s approach retirement age around 2030. This aging trend, combined with the effects of the one-child policy from the 70s and 80s, is producing a population structure with an uncomfortably high elderly dependency ratio, which is expected to rise from 9.5% in 1995 to over 30% in 2040.

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<sup>1</sup> GDP per capita (in ppp) reached US\$2,800 in 1996.

China's labor force in 1995 numbered around 622 million, representing 77% of those aged 15 to 64.<sup>2</sup> Various government organizations, public institutions, state-owned enterprises, and collective and private enterprises in urban areas employed 173.5 million of these workers. Prior to the enterprise reforms, SOEs provided cradle-to-grave security (the "iron rice bowl") for millions of urban Chinese by granting privileged access to housing, healthcare, education and pensions. The lack of a mature market and the privileged status of benefit entitlements for public enterprise employees served as disincentives for workers to seek employment outside the state sector. After the introduction of enterprise reforms, employment in non-state sectors began to grow rapidly throughout the 1980s. In 1995, the figures representing urban employment in foreign-funded, private, and individual enterprises grew to over 25 million. However, most of these non-state sectors previously had small or no old age security benefits.

Between 1990 and 1994 the proportion of the labor force engaged in agriculture declined from 60% to 54.3%. This trend is projected to continue – the share of labor in agriculture is estimated to fall to 17% by 2030 and to 10.5% by 2050 – accompanied by growth in non-agricultural employment in rural areas. Hence, the term "rural" no longer translates automatically to "self-employed and dependent on agriculture." Nowadays, in many rural counties in the coastal region, wage employment is prevalent, and agriculture yields only a small share of income.

About 20 years ago, before the introduction of reforms and open door policies, China held one quarter of the world's population living in abject poverty. Now that proportion has diminished to less than a twentieth. Nonetheless, despite the impressive gains in poverty alleviation, China has experienced significant gaps in economic development across different regions. The majority of China's poverty-stricken population is highly concentrated in central and western rural areas where natural conditions present difficulties for human living as well as livestock and crop production. In fact, there is great disparity between the national average annual per-capita household disposable incomes of urban and rural dwellers – ranging from highs of 8,440 yuan for Shanghai and 8,600 yuan for Guangdong to lows of 3,592 yuan for Gansu and 4,001 yuan for Shaanxi.<sup>3</sup>

The National Poverty-Relief Program, established in 1993, has the purpose of mobilizing central and local governments to eradicate poverty nationwide by shifting from mere provision of relief to economic development – e.g., via improvement of the ecological environment and production conditions, technical promotion and training.<sup>4</sup> Nine provinces

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<sup>2</sup> A labor force participation of this magnitude is considered high by international standards.

<sup>3</sup> The exchange rate for the US\$ was 8.28 in 1998.

<sup>4</sup> For instance, farmers cultivating corn in high plateaus with cold climates received training in the technique of mulching, which resulted in a doubling or tripling of per-unit yield and increased their annual income by 200-300 yuan. Also as a result of technical training, farmers in the Dabie Mountain areas in Xinyan and in Henan Province became experts in growing tea, peanuts and fruits, as well as breeding fish and poultry.

and municipalities participated in the inter-provincial assistance program that sponsored one-to-one projects in which the wealthier member from each paired unit invested money and technology in projects located in its poorer counterpart, in order to utilize local natural resources and labor. The benefits of such a program are twofold. First, the excessive focus on cities and urban areas is bypassed, thus minimizing the negative byproducts of over-urbanization. Second, poor townships/villages are given a chance to move out of poverty-stricken conditions and develop into small and medium-sized towns with income generating potential, thus narrowing the income disparity between regions.

Historically, the family bore an important role as a unit of production and consumption, and it held sole responsibility for support of the elderly. This was a reasonable expectation in the past when family size was larger and several generations often cohabited to pool resources and share risks. But modernization is changing these traditional arrangements. The strict family planning policy and the one-child policy both tend to lower the ratio of wage earners to the elderly. Furthermore, reductions in family size, the shift toward nuclear households, and increasing population migration all contribute to the erosion of family support for the elderly. The dramatic "1-2-4" structure (families with one child, two parents, and four grandparents) will have profound consequences – the elderly will receive less attention as well as fewer yuans as the dependency ratio increases. The fact that only a small minority of the elderly (most of whom live in the cities) receive pensions serves to aggravate this situation. Those elderly who receive little or no family support and are not entitled to any secure source of income will be at high risk of fulfilling their basic needs.

China escaped the turmoil that affected Southeast Asian currency markets in 1997-98 partly because the renminbi (China's unit of currency) is not fully convertible, and China's foreign exchange reserves swelled to US\$ 131.6 billion in September 1997.

## **II. Analysis of the Pension System**

### **Background**

China first formulated pension provisions under the National Labor Insurance Regulation in 1951 for enterprises with more than 100 workers, which it extended to enterprises with less than 100 workers in 1958. The system had defined benefits, providing old age pensions that represented 50% to 70% of workers' wages. Funding came exclusively from contributions by enterprises at a rate of 3% of the wage bill. Seventy percent of contributions financed pensions while 30% contributed to a national master pool as a form of prefunding.

In 1969, during the Cultural Revolution, the government disbanded the trade unions, which had administered the pension schemes, and the Ministry of Labor. It transferred responsibility for pension supervision to local labor bureaus and for the management of

payments to the respective enterprises, to be paid from their current revenues.<sup>5</sup> Hence the practice of social pooling was terminated. Furthermore, the pension funds that had accumulated were used for other purposes, effectively eliminating any prefunding reserves that had built up.

With the economic reforms in 1978, the State Council issued new pension regulations and reaffirmed certain pension rights. It also granted new and higher benefits – with a replacement rate of 60% for 10 years of service, 70% for 15 years, and 75% for 20 or more years of service – and introduced incentives for early retirement. The number of pensioners jumped from 3.14 million to 22 million in ten years, and expenditures grew rapidly, increasing almost 19 times during the same period. As a result, contribution rates rose from 2.8% to 10.6% of urban wages.

Throughout the 80s and the 90s, the Chinese Government allowed certain provinces to test various pension reform initiatives as experiments/pilots. These focused primarily on: (i) shifting from enterprise insurance to social insurance by setting up social pooling systems for industries in urban areas;<sup>6</sup> (ii) requiring individual contributions in order to distribute the pension cost burden;<sup>7</sup> (iii) establishing voluntary occupational pension schemes and individual savings plans to supplement pensions; and (iv) partially pre-funding future pension debt by setting a higher contribution rate. While a final consensus has not yet been reached on how to unify the system, the State Council Document 6 of 1995 proposed two models for the basic benefit tier (involving individual accounts and social pooling), and localities can choose one of the two or a combination thereof. Plan I emphasized individual accounts while Plan II emphasized the social component.<sup>8</sup>

Currently the pension system operates under the norms of State Council Document 26, issued in July 1997, which specifies the social pooling and individual account arrangements. Provinces pool funds from enterprises (no more than 20% of payroll) and individual workers (4% of wages, gradually increasing to 8%). The pay-as-you-go pillar is financed entirely by 13% of the enterprise contribution and intends to offer a 20% replacement rate. The individual accounts are funded by the remaining 7% of the enterprise contribution plus the worker contribution.

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<sup>5</sup> This was considered acceptable since all enterprises were state-owned and the government assigned workers. Thus, in effect all workers were government workers, for whom the State set wages and benefits.

<sup>6</sup> According to a speech made by a Chinese official, since 1984, as many as 96.6% of SOEs, 56% of collective enterprises and 32% of private and foreign joint ventures joined the system of social pooling at the county/provincial level.

<sup>7</sup> The 1991 State Council Decision introduced the concept of individual accounts as an experiment to supplement enterprise contributions.

<sup>8</sup> The State Commission for the Restructuring of Economic Systems and the Ministry of Labor developed Plan I and Plan II, respectively.

## **Coverage**

By the end of 1996, 87.7 million urban workers had joined the basic pension insurance scheme and 24.5 million retired persons were receiving benefits from the social pooling pension scheme.<sup>9</sup> Overall coverage is around 20% of the labor force.

China's formal pension system is largely urban-based. Not surprisingly, even in urban areas, pension system coverage has focused largely on the state sector, while the nonstate sector is inadequately covered. Around 70% of the country's population of 1.259 billion (end-1996) live in the countryside and do not participate in the system. Instead they have relied primarily on the extended family for old age support. Recognizing the implications of smaller families and increasingly mobile workers, the Ministry of Civil Affairs has experimented with a voluntary pension insurance system for farmers and workers in town and village enterprises.<sup>10</sup> Extending coverage to them would not only provide for their old age security but would also ease the transition to the new pension system by providing more funding. However, the enterprises with low coverage are also the most dynamic, and extended coverage may translate to a substantial increase in labor costs and must be approached cautiously.

## **Fiscal Sustainability**

Projections conducted by the government of China's Research Group for the Social Security System (China RGSSS 1995) concluded that the current system is unsustainable. In order to maintain the pay-as-you-go arrangement, i.e., use current contributions to pay for current expenditures, a 39.27% contribution rate would be required by 2033. Contribution rates of such magnitude would dampen the effect of China's growth on wages and employment, encourage contribution evasion and labor shifts to the informal sector, and invariably lead to large intergenerational redistribution.

While the combination of social pooling and individual accounts could smooth this increase, a total contribution rate of 28% would still be necessary to maintain fiscal balance, with the assumption of no borrowing. Higher dependency ratios in some localities would require even greater increases in the contribution rate – similar enterprises in different provinces may have to pay widely divergent payroll taxes, with a differential of 20% - 30%.<sup>11</sup> Clearly, such regional disparities in contribution rates would not be acceptable, economically or socially.

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<sup>9</sup> Provincial pooling has occurred, at least on paper, in 27 of the 32 provinces (although some pooling is only partial), but enterprises remain responsible for record keeping and the actual delivery of pension benefits.

<sup>10</sup> This scheme covers only about 60 million rural residents, mainly in the developed eastern provinces Jiangsu and Shandong.

<sup>11</sup> Average contribution rates in state enterprises in 1994 were 23.5% for the provinces and 25.9% for municipalities, with values as low as 19% in Guangdong to as high as 28% in Henan.

Provincial pension pools, for the most part, are encountering serious funding problems. In 1998, 22 provincial pools were in deficit, with state enterprises owing the government 38 billion yuan of arrears. Local governments have been using contributions to the individual accounts to pay current retirees, leading to notional or empty accounts in a context in which the source of financing of the transition cost remains unclear. They have also used local tax revenue to bolster the system, and the Ministry of Finance transferred 17 billion yuan to 25 provinces to cover shortfalls in 1999. Even while most provinces ran pension deficits in 1998, 10 provinces – mainly in the coastal region – had 2.7 billion yuan in surplus, but due to the lack of national pooling, the central government cannot use these reserves to smooth the other provinces' deficits. By the end of 1998, total reserves in the basic pension system amounted to 58.7 billion yuan, less than 1% of GDP.

There is consensus about the need to reduce the pension burden, but no agreement has been reached on how to do so effectively. While increasing retirement age, lowering wage replacement rates and using appropriate pension indexation<sup>12</sup> can help, in China's case, none of these measures alone can effectively bridge the deficit. Extending coverage may prolong the occurrence of current deficits, but this is only a short-term palliative. Unless pension assets from funded accounts are properly invested to maximize return and build real capital, the benefits of workers in the newly covered cohort will still have to be paid on a pay-as-you-go basis from future contributions at a much higher rate.

### **Administration, Regulation, Investments and Tax Treatment**

China has no social insurance law, and there is wide dispersion of authority over pension policy regulation and administrative matters. The highly decentralized social insurance system lends itself readily to inconsistent enforcement.<sup>13</sup> Many localities intentionally differentiate their schemes from others and introduce nontransparency in order to retain authority over their programs. The lack of a legal framework and the weak enforcement power of local social insurance agencies make the tasks of collecting payments or levying penalties difficult. Enterprises are still inundated with the tasks of keeping records, paying pensions and taking care of pensioners' needs, including housing and health. Because of the highly fragmented system and the absence of a regulatory framework, administration costs are high, and compliance rates are falling,<sup>14</sup> which will ultimately increase the burden on state

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<sup>12</sup> Municipalities have partially indexed pensions to nominal wages in the past. The indexation coefficient ranges from 40% to 80% of nominal wages, depending on the province and city, with no explicit relationship to inflation. But this approach has been uncertain and nontransparent and allowed for an increase or decrease in the real value of pensions depending on the rate of inflation. In the future, it may be most prudent to index benefits according to the average growth rate of prices.

<sup>13</sup> By mid-1994, every province and large city had set up its own social insurance department to handle policy matters as well as its own labor insurance bureau to administer social insurance funds.

<sup>14</sup> Compliance rates are currently around 90%.

enterprises. The existence of the two models for the basic tier has also contributed to further fragmentation of the system and local variation.

According to regulations, 80% of the reserve funds must be invested in government bonds and the rest in bank balances. Since interest rates set by the government have been below inflation rates in recent years, these reserves have lost value over time. Of late, localities are ignoring the regulations and investing these funds in local projects, sometimes yielding higher rates of return. Thus, it is to the advantage of the localities to make the investment portfolio as nontransparent as possible in order to maintain control over the resources.

The tax treatment of pension plans is based on the “tax-exempt-exempt” regime for contribution, accumulation and benefit payout. While this treatment is acceptable, it will always be subject to the risk that the government might decide to tax benefits in the future. Also, the exemption of benefit payments from taxes has the effect of increasing the net replacement rate as a percentage of the pre-retirement income.

### **III. Reform Issues and Options**

In the past public enterprises have provided cradle-to-grave security, or the “iron rice bowl,” to millions of urban Chinese. With the structural transformation of China’s economy, it has become apparent that the pay-as-you-go financing of the enterprise-based pension system cannot adequately meet the challenges posed by the aging population in the next millennium. For more than 15 years, various reforms of the pension system have been conducted on a trial basis. Considerable progress has occurred with the enactment of State Council Document 26, which laid down the key principles and broad framework on China’s transition towards a more stable old age security system. However, many important issues deserves continued attention, including:

- Unification. The reform measures articulated in State Council Document 26 require a major redirection of financial flows and asset entitlements and can affect young and old populations alike. Inevitably, there will be major winners and losers. Geographic disparity in contribution rates may continue for the foreseeable future. Difficulties in reconciling inter-provincial interests will persist for some time and may impede the likelihood of a nationally unified system with a harmonization of contribution rates. The nonstate sectors and some industrial sectors with a relatively young workforce may resist participation and hence delay unification.

The success of the pension reform is dependent on how the poorly funded SOEs can be restructured without putting extra financial burden on the State. If the pension system were to be unified and coverage were to be extended to the non-state sector (including village and township enterprises), the government would have to convince the new contributors to participate in order to have a sufficient transfer of resources to liquidate



the deficits of the pre-reform programs. At the same time, contributors and beneficiaries alike must buy into the reformed system. For in essence, the replacement rate is being reduced from an 80% defined benefit pension supposedly guaranteed by the SOE enterprises to a 20% defined benefit pension now implicitly guaranteed by the government, to be supplemented by a combination of notional defined contribution style pensions plus voluntary savings.

- Investment function for reserve funds. It is important that while the population is still relatively young the excess cash flow be accumulated to build up real capital. These reserves, together with all accrued investment income, must be preserved solely for the benefit of current and future retirees. However, under the current circumstances – with local government control, the requirement to invest in central government bonds that yield negative real interest rates, the absence of suitable financial instruments, and limited mobility of capital within the country – pension funds may actually decline in value, thus diminishing the likelihood of the delivery of promised benefits. In fact, funded individual accounts will yield acceptable wage replacement rates only if the long-term rate of return on pension funds is at least equal to the growth rate of wages and inflation. Eventually, inefficient investing will result in the need for even higher future contribution rates, thereby compromising the financial stability of the system.

Many opportunities to put pension capital to the most productive use have been lost. Although China has enormous needs for infrastructure and other long-term investments, the fact that most household savings are in short- and medium-term deposits does not provide a good match for long-term lending. The lack of reliable long-term financial instruments means foreign financial resources have to be mobilized for infrastructure investment (often at high guaranteed rates of return), while domestic savings are inefficiently utilized.

- Labor mobility. For China to benefit fully from the socialist market economy and the restructuring of its state enterprises, factors of production must be readily transferable between sectors and regions. Upon the liquidation of a SOE in one city, laid-off workers need to have the option to secure employment by moving to areas where similar industries might be expanding. In order for this to happen, pension benefits of workers must be portable – departing workers have to be able to take their individual accounts with them wherever they go. The fragmentation of the national system into many separate unfunded municipal pools makes portability difficult, if not impossible, and will become an increasingly serious impediment to labor mobility. The situation is made worse by the fact that individual accounts are largely notional. The reform should plan to address these concerns in practice.
- Institutional development. The successful implementation of the proposed pension reform depends critically on accompanying reforms in the legal, administrative, and

financial systems. While coverage expansion and increased compliance are vital for making the proposed system viable, the existence of a strong legal framework, appropriate administrative capabilities and a competitive financial sector is critical to safeguard pension funds. The regulatory framework in China has yet to be completed, and the capacity to implement and enforce prudential regulations needs to be enhanced. The development of self-governing professions can also improve practice and keep them on par with international standards. Management and financial control systems are necessary to ensure accurate record keeping and prompt payments, maximize compliance and detect or even penalize fraud and evasion. These tasks should be carried out by a separate social insurance agency with the authority to enforce the law and define responsibilities of government at each level.

Chinese policy analysts and international experts have studied the Chinese pension system for many years. It is now time to consolidate the learning experiences from numerous experiments and pilots and come to closure on as many of the unresolved issues as possible. Admittedly, pension reform impinges on many political considerations. However, the sooner China implements a Social Insurance Law creating a unified system, the sooner it will be able to achieve a sustainable pension system that provides old-age security to its rapidly aging population while strengthening national savings and expanding the market for enterprise securities.

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## Hong Kong, People's Republic of China\*

### Overview of Formal Old-Age Support

Hong Kong's vigorous economy, high relative wealth and savings, and strong family networks have traditionally belied the establishment of a universal public old-age income support scheme. At best, the government has addressed social security for the elderly through a system of non-contributory safety nets under the Social Welfare Department:

- The Comprehensive Social Security Assistance (CSSA) Scheme – This is a means-tested scheme designed to raise the income of elderly individuals and others in need.
- The Social Security Allowance Scheme (SSAS) – The SSAS is a non-means-tested scheme that provides flat-rate allowances for all elderly individuals<sup>1</sup> and people with severe disabilities. Monthly benefits amount to HK\$ 675 for those aged 70 and over and HK\$ 595 for those aged 65-69. This scheme and the CSSA are mutually exclusive.
- Other Schemes – Three non-means-tested schemes (Criminal and Law Enforcement Injuries Compensation Scheme, the Traffic Accident Victims Assistance Scheme and Emergency Relief) provide cash and material assistance to victims of injuries from various causes.

Some employers have voluntarily established retirement schemes as a means of attracting and retaining employees, but these reach only a little over a third of the workforce. In addition, three government pension schemes cover some 200,000 civil servants, teachers and judicial officers. The Civil Service Pension Plan is a defined benefit scheme, which provides benefits as early as age 50 at the rate of 1.78% of highest annual salaries for each year of service, subject to a maximum annual pension of 2/3 of the highest salaries. The British Government Actuary conducted the last actuarial valuation of the plan some eight years ago; the funded status of the plan is currently not known.

Following a lengthy debate on the nature of desired formal old-age income support, the government declared its intention to avoid the establishment of a government-run central provident fund. Instead, it proposed to create incentives for the private sector to establish retirement schemes while maintaining the appropriate regulatory powers. In August 1995, it enacted the Mandatory Provident Fund Schemes (MPF) Ordinance to establish a formal system of retirement protection. Completion and passage of the subsidiary legislation and amendments to the primary ordinance occurred in April 1998, with implementation to begin around July 2000.

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\* Yvonne Sin, The World Bank, HDNSP (ysin@worldbank.org) prepared this profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

<sup>1</sup> Eligible applicants must have resided in Hong Kong for at least five years. Those aged 65-69 must possess assets of less than HK\$ 169,000 for a single person (HK\$ 254,000 for a married couple) and monthly income not exceeding HK\$ 5,910 (HK\$ 9,740 for a married couple). There are no asset and income tests for those aged 70 or above. In 1997, HK\$ 7.74 equaled US\$ 1.00.

## **I. Background**

Hong Kong became a Special Administrative Region (SAR) of the People's Republic of China on July 1, 1997, after a century and a half of British administration. Under the 1984 Sino-British Joint Declaration, the government in Beijing has agreed to maintain a principle of "one country, two systems" in the Hong Kong SAR. To this end, China's leaders are committed to providing Hong Kong with a high degree of autonomy (except in foreign and defense affairs) for at least 50 years after 1997, during which period China's socialist policies will not be implemented.

Hong Kong has a bustling free market economy with few tariffs. Natural resources are limited, and food and raw materials must be imported. Over the past two decades, the economy has more than tripled in size. The country's GDP has been growing at an average annual rate of about 7% in real terms, twice as fast as the world's economy and faster than the OECD economies. In 1997 per capita GDP reached US\$ 26,400, surpassing some OECD economies including the United Kingdom, Australia and Canada and, in Asia, remaining second only to Japan and Singapore. Hong Kong residents benefited from this remarkable economic performance and enjoyed an unprecedented rise in living standards and income in both nominal and real terms.

During the last several decades, Hong Kong's fertility experienced a dramatic decline. The total fertility rate (TFR) decreased by almost 70%, from 3.50 in 1970 to 1.15 in 1996, which is lower than rates in Japan and the Netherlands. The rapid decline owes to prevailing norms in favor of better education, higher female labor force participation and late marriage with few or no children. The net effect of these developments has been the shift of childbearing among women to a narrower age band later in life. While demographers anticipate that the TFR might increase slightly (to 1.55 in 2016) as a result of the "catching-up" effect, it will still be significantly lower than the rate of 2.10 necessary to maintain a stable population.

Hong Kong is enjoying continuous improvements in life expectancy. The reduction in age-sex-specific mortality rates will lead to a rise in life expectancy at birth from just below 70 two decades ago to a projected life expectancy of over 79 for men in 2036, and female life expectancy at birth is projected to increase from 76 to over 83 during the same period. Such high life expectancy rates at birth approximate those of low mortality economies like Japan, Switzerland and Sweden.

Low fertility and improved life expectancy are causing the population to age rapidly. The proportion of the population aged 65 and over rose from 8% in 1987 to 10% in 1997 (compared to an average of around 4% in other Asian countries) and is expected to exceed

20% in 2036. The overall result of these demographic trends is a high elderly dependency ratio and rising median age.<sup>2</sup>

Hong Kong's labor force in 1997 numbered 3.2 million (out of a total population of 6.62 million), of which 61% were male and 39% were female. This represented 61.8% of the total population aged 15 and over. Labor force participation rates are high. During the past decade, there has been a structural shift in employment patterns from the manufacturing sector to the service sector.<sup>3</sup> Although the principle of *laissez-faire* has guided Hong Kong's employment practices for decades, a clear trend towards improved employee protection and benefits has emerged.<sup>4</sup> Due in part to its extended economic boom, Hong Kong continues to experience a labor shortage, which has translated into upward pressure on prices and the cost of living. Many companies have responded by implementing improvements in real benefits in a bid to retain staff. This has led to increased expectations of company-sponsored employee benefit plans, especially in the case of British and American companies, multinationals and other international firms.

Hong Kong is mainly urban and has a very high population density per square foot. The rural/urban differential in income and social conditions is not as prominent an issue as in some other Asian countries. Although some rural settlements remain, they are few, and high-rise living is the norm throughout the territory. Today, public rental housing accommodates 39% of the population (2.5 million people). Subsidized home ownership schemes, in which "graduating" families can purchase properties in exchange for surrendering rental flats, supplement the public housing system. The joint efforts of the government and the private sector have lifted the overall home ownership rate to 52%, compared to 42% ten years ago. The government is gradually moving people out of cottage areas and (urban) squatter settlements. There are now only five cottage areas remaining in Hong Kong, housing some 3,000 people, and the squatter population has been reduced to about 233,300.

Owing to the strong influence of Confucian philosophy, sociocultural norms obligate children to care for their parents in old age and society at large to assume some responsibility for the well being of its senior citizens. While the family remains the primary provider for the elderly, the government, under the auspices of the Health and Welfare Bureau and the Social Welfare Department, strives to offer a wide range of community services to help the elderly remain at home or stay in the community. However, the fact remains that the old-age allowance, which is subject to prescribed income and asset tests, is inadequate for supporting an independent lifestyle without supplements.

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<sup>2</sup> The elderly dependency ratio is projected to increase from 141 in 1996 to over 200 in 2036. Meanwhile, the median age of the population rose from 29 in 1987 to 35 in 1997 and should reach 45 in 2036.

<sup>3</sup> Of those employed in 1997, 79.1% were engaged in the service sectors, and about 10.1% worked in the manufacturing sector. Goods and services exports account for about 50% of Hong Kong's GDP.

<sup>4</sup> The 1990-97 period witnessed the introduction of anti-discrimination legislation, the Occupational Retirement Schemes Ordinance (ORSO), and the Mandatory Provident Fund Schemes Ordinance (MPFSO).

The government is aware of the implications for old age income security presented by its rapidly aging population. Hong Kong now has the second highest percentage of old people in Asia, after Japan. Moreover, evidence of poverty among the aged and weakening family supports make old age income security a prominent social policy issue. Even though the current old age allowance pays only a nominal benefit of up to one-third of median earnings, as the numbers of elderly grow, such a commitment could become a huge burden on society. Hence, for a number of years, the government has been seeking a sustainable solution to the country's need to ensure adequate retirement income for its workforce before the old-age crisis peaks.

## **II. Analysis of the Pension System**

### **Fiscal Considerations and Benefits Provision**

The government funds its assistance programs (through the Social Welfare Department – SWD) from general revenue. In 1997 over 750,000 persons (12% of the total population) benefited from the various schemes. Payments for CSSA and the Old Age Allowance under SSAS increased from US\$3 billion in 1992 to over US\$10 billion in 1997. This rapid rise will continue, since the dependency ratio should roughly triple by 2050. The government recognized some time ago that this aging trend would present an unsustainable fiscal burden in the long-term. It opted to reform the system by using a multi-pillar approach that will retain the first pillar of the safety net administered by SWD and supplement it with a mandatory, privately managed second pillar, the MPF, which is designed to provide ample room for additional voluntary savings.

The MPF requires both employers and employees to contribute 5% of earnings – for a total of 10% – to provident fund schemes managed by private sector trustees. It calls for individual capitalization accounts, providing a direct benefit-contribution link. There will be no guarantees by the government for minimum pension or investment return, thus eliminating future implicit or explicit costs. Government projections assume that career accruals of 10% per annum will result in a retirement pension of 30% to 40% of final earnings. If all members of the workforce were to be covered by the MPF, the resulting capital accumulation would eventually imply a reduction in the number of elderly eligible to collect benefits from either the CSSA or the Old Age Allowance, lowering the government's social assistance burden over the long term. Therefore, the addition of the second pillar is the key element to ensure fiscal sustainability of the overall system.

Since the accumulated balance will be paid upon termination of participation, no replacement rate is guaranteed. A key issue is whether the long term rates of return can generate adequate growth to provide the projected retirement income (i.e., 30% to 40% of final earnings). Of course, this does not simply depend on rates of return, but rather on the differential between



wage growth and investment return. Hong Kong has enjoyed extraordinary economic growth. One study showed that over the last 15 years, even the lowest return generated by a universe of 327 surveyed funds outperformed salary inflation by 90 b.p., whereas the median fund outperformed salary inflation by as much as 300 b.p. (Annex 1). Still, the attainment of results compatible with wage growth assumes that participants have the requisite knowledge to direct their contributions to appropriate investment options that pay adequate risk premiums to sustain long-term capital appreciation.

### **Coverage, Contribution-Benefit Link and Redistribution**

The MPF will attempt to cover essentially the entire workforce, including the self-employed (see Annex 2 for key features of the scheme).<sup>5</sup> Full and immediate vesting ensures that job mobility will not be hampered, a desirable feature in a mobile labor market in which the average duration in a job is less than five years. Furthermore, recognizing that it will create certain administrative and financial burdens for some highly mobile industries, the government will provide relief for construction and catering, the two largest and most mobile industries, by allowing employees to switch employers while remaining within the same master trust scheme, thus avoiding termination or transfer charges against their MPF benefits. The issue of evasion will be addressed through *ex-post* audits, via cross checking between business registrations and Internal Revenue records, and random audits. However, the fact remains that less than 20% of Hong Kong's population pay income tax, and in the absence of a strong collection enforcement infrastructure, it will be difficult to track those who shift towards informal labor market activities to avoid making contributions.

Under the current public system, the CSSA and Old Age Allowance under SSAS act as safety nets to ensure that the entire population can have access to some old-age income. Even though the means- and asset-tested provisions of the CSSA may achieve some redistribution of income, the universal Old Age Allowance actually benefits the rich more than the poor because of longevity differences between higher and lower economic classes. In the privately managed MPF, as far as possible, the defined contribution provisions link benefits directly to the participants' work records and contribution effort. The MPF is therefore not concerned with distributive effects, which are left entirely in the hands of the public schemes.

### **Regulation, Taxation, Administration and Investment Policies**

The MPF Authority, a quasi-governmental body, has been established to monitor and regulate the MPF. Its roles and responsibilities include:

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<sup>5</sup> Members of ORSO (Occupational Retirement Schemes Ordinance) schemes may remain exempt from MPF participation provided that the ORSO scheme is governed under a registered trust and provides benefits of at least equal value to the MPF Minimum Equivalent Benefit. Current and future employees must be presented with the option of joining either an MPF or ORSO scheme.

- establishing rules governing the operation and regulation of MPF schemes;
- registering MPF schemes;
- approving, suspending and removing trustees;
- ensuring compliance with the MPF Ordinance by making inquiries and inspections of retirement schemes;
- regulating and supervising trustees, including through the examination of employer and trustee procedures; and
- prosecuting serious breaches of MPF regulations.

The Authority will administer the Compensation Fund<sup>6</sup> and advise the government on retirement and future policy matters. It will also collect and maintain retirement scheme statistics, resolve disputes and bear responsibility for educating the public on retirement savings. In addition, with the establishment of the industry schemes for construction and catering, the Authority will handle the tendering exercise for the selection of two fund managers (with five-year contracts) on behalf of the respective industries.<sup>7</sup>

Hong Kong adopted relatively modern provisions regarding the regulation and asset allocation of the MPF schemes. For supervision, the MPF relies on current authorities (that reputedly measure up to international standards) to exercise their historical integrity in regulating the financial service sectors. For asset allocation, the MPF uses a proscriptive approach with qualitative and quantitative restrictions on permissible investments in order to attain greater assurance of investment grade quality, risk management and diversification (Annex 3). Each MPF scheme must formulate and maintain a “statement of policy and objectives” for each investment fund selection offered by the scheme. Although fund managers have greater flexibility to cope with dynamic market conditions under the MPF, the required concomitant monitoring may prove to be more onerous for the supervisory authorities than expected.

Hong Kong is one of the few countries that has adopted the “exempt-exempt-exempt” regime for taxation of contributions, accumulations and benefits under the MPF Ordinance, with the exception of employer funded non-mandatory benefits, which are subject to taxation at the time of payment. This treatment may appear generous by many country’s standards, but in the context of Hong Kong’s liberal tax system – there is no existing tax on investment income or capital gains and only a small percentage of the population (estimated to be less than 20%) pays income tax – the “EEE” regime may well be the only logical one.

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<sup>6</sup> This is a fund established to indemnify participants against losses incurred as a result of misfeasance or illegal conduct by the trustees or any of their legally employed service providers.

<sup>7</sup> It is not clear at this point what limitations and liabilities the Authority will assume through this tendering process and how it will indemnify itself against any conflict of interest charges.

Responsibilities pertaining to administration and investment rest with the private sector, with the MPF Authority acting only as a supervisory and monitoring agency. The trustees' responsibilities include, but are not limited to, ensuring that employers make proper and timely contributions on behalf of their employees. In broad terms, the trustee is a fiduciary of the trust and bears responsibility for the compliance of all service providers (i.e., scheme administrators, asset managers and asset custodians) associated with scheme operation.

Trustees may cover reasonable expenses associated with the operation of the schemes (such as establishment costs, trusteeship, custody of assets, asset management, administration, professional fees and statutory fees) by way of contribution and asset charges that they must disclose to members. Alternatively, an employer can elect to meet the MPF expenses outside of the trust. On the other hand, there is no discretion over allocation of investment income, all of which must be passed on directly to the participants.

There are no specific guidelines on permissible minimum and maximum expenses to be paid from the trust. Ultimately, the efficacy of a pension scheme depends greatly on the level of administrative expenses. Other things being equal, high costs mean lower benefits in retirement, and it is the responsibility of the trustee to find the optimal balance between costs and benefits, thus ensuring the highest net growth for the pension scheme. Some managerial and investment arrangements may incur higher costs than others. It is therefore critical to simplify record keeping and other administrative tasks and to monitor the overall competitiveness of fee schedules closely.

While the main beneficiaries of the MPF system will be members of the workforce, the introduction of a fully funded system will generally have a positive impact on the economy. Annual MPF contributions should amount to more than HK\$ 10 billion in the initial years of operation. The amount of annual contributions will increase to about 4% to 5% of GDP when the system matures after 30 years. Cumulative assets under the MPF could well exceed 60% of GDP eventually. This significant amount of retirement assets will add impetus to the further development of the financial markets. MPF is a long-term investment, and it will generate demand for quality bonds meeting minimum investment grade ratings as well as equities and other investment products.

### **III. Reform Issues and Options**

The government's objective is to adopt a multi-pillar system for providing old-age retirement income. Understandably, because it is the newer of the two pillars, most of the government's efforts have been channeled towards establishing the private-sector oriented MPF. To date little has been done in terms of redesigning the publicly funded SWD programs in light of the

second pillar.<sup>8</sup> Hence, in order to achieve a truly integrated multi-pillar pension system there are still several important issues to consider:

- Providing for the long-term viability of the safety nets. While it does not constitute an explicit promise to future generations of elderly, retaining the CSSA and Old Age Allowance as the first pillar implies a certain level of ideological commitment on the part of the government to protect the aged. Despite the fact that these programs still account for less than 5% of public expenditure, the recent tripling of costs clearly demonstrates the effects of the continuous aging trend. The government will have to consider politically unpleasant policy options to control the increasing expenditures of the SWD schemes, including: (i) reducing the value of the monthly allowance from its current level of one-third of median earnings; (ii) raising the means-tested threshold and reconsidering the demogrant scheme in order to improve targeting; and (iii) increasing the age of eligibility to reflect rising life expectancy. The ultimate sustainability of the entire system depends on the harmonization of these choices with the operation of the MPF.
- Integrating public sector pension schemes with the MPF. Special treatment of certain groups of public sector employees (civil servants, teachers and judicial officers) under schemes using final-earnings related formulas may warrant reevaluation with the implementation of the MPF. If the schemes were to be phased out, a review of the overall compensation package would be necessary.
- Improving benefits planning. The prudent use of risk diversification is crucial for helping the MPF achieve maximum retirement protection. However, there are two areas of concern in risk diversification – investment risks and longevity risks. In an attempt to alleviate the first, i.e., investment risk, inherent to all defined contribution plans, the MPF Ordinance requires all MPF schemes to offer a capital preservation fund<sup>9</sup> as a low-risk investment option. But if participants directed MPF holdings solely to this low-risk investment option instead of diversifying, the probability of translating the accumulation into an income stream of 30% final earnings would be very low. As regards the second, i.e., longevity risk, the current design ignores the issue by paying participants their lump sum entitlements upon termination or retirement. It is not clear whether the prevalence of the lump sum feature is prompted by the lack of an annuity market or is due to the fact that it is the preferred choice of participants. Nevertheless, the absence of a life income

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<sup>8</sup> A review of the provisions of the CSSA in the summer of 1998 resulted in recommendations focused on reducing fraud, enhancing employability and tightening eligibility. There was no review of either eligibility or benefits under the Old Age Allowance scheme.

<sup>9</sup> Investments have to be in bank deposits and high-quality money market instruments. This was a compromise solution to the unions' request for a minimum guarantee fund that yields a net real return of 4% per annum to be credited on a year-by-year basis.

option exposes participants to the risk of outliving their capital accumulations despite full career contributions.

- Ensuring compliance. A central concern regarding the system's success involves evasion, for which there needs to be a more complete approach in terms of monitoring and administration. Random audits and levying heavy fines can only serve as passive temporary measures. If indeed the government is serious about achieving near 100% coverage of the workforce, it is imperative that it devise a more elaborate scheme for tracking compliance. Otherwise, a high proportion of the workforce will still end up retiring poor and in need of social assistance in the future, thus undermining the credibility of the reform efforts.
- Protecting the MPF from political pressures. It is important to keep in mind that the MPF system will not mature for another 30 years, when the first participant retires with full accumulation over his/her entire working life. Member balances need to be guaranteed protection. Since the MPF is destined to be a fully funded, privately managed scheme, theoretically it is barred from public use except when the fund chooses to invest in government backed securities. So the risk of it being diverted for use in other public/social projects is, in principle, absent. Yet the experience of neighboring countries, such as Indonesia, has shown that government can pressure fund managers to invest according to policy goals other than maximizing investment return.
- Building ownership. Despite the lengthy debate and wide consultations prior to the enactment of the MPF Ordinance, it was passed by a narrow differential of four votes. Therefore, it may not reflect the preferences of a number of stakeholders and may in fact not have the full support of the population at large. It will be critical for the MPF Authority to complete the marketing process in order to promote buy-in. A prerequisite for success is that politicians, professionals and ordinary citizens all embrace the ideology of an integrated system providing both income-redistribution and savings.

Most employers and service providers have begun to facilitate the establishment of MPF schemes. The government needs to ensure that there is ample time for all stakeholders to become comfortably acquainted with the new vision of a multi-pillar system. It is therefore critical that the Authority launch a series of educational and publicity campaigns to promote public awareness and acceptance of the MPF system. In particular, the successful implementation of the MPF depends on active participation and informed decision-making on the part of members of the workforce, which in turn is contingent upon their understanding of how the new retirement savings alternatives and investment options can work for them. Ultimately, the only way the government can reduce its social assistance burden is by achieving target retirement benefits through superior investment returns. To this end, the adequacy of capital accumulation under the MPF has to be assessed in the light of

entitlements under the SWD programs, so that different sources of retirement protection can be integrated into a coherent whole.

Hong Kong is the first among East Asian countries to introduce a mandatory, privately managed second pillar pension system. As other countries in the East Asia and Pacific Region begin to embark on their own pension reform process, they will certainly look to Hong Kong's experience for lessons learned. What happens in Hong Kong over the next several years in the area of old age income security reform will inevitably have enormous impact on how other Asian countries choose to approach their own reform mandates. It is imperative that the Bank monitor the developments in Hong Kong closely so that it can draw lessons from this "sentinel" reform process.

**Annex 1. Salary, Inflation and Investment Returns**

	Cumulative Annualized Returns (% p.a.)										
	83/97	88/97	89/97	90/97	91/97	92/97	93/97	94/97	95/97	96/97	1997
Highest	16.0	13.8	14.5	14.4	16.7	17.1	18.9	10.1	15.1	18.7	16.9
Median	14.6	10.2	9.9	8.8	10.7	9.9	10.6	1.7	7.8	3.9	-7.3
Lowest	12.7	7.2	6.7	4.3	5.1	4.4	4.2	-9.5	-8.2	-15.3	-37.8
Hang Seng CPI	8.5	9.3	9.4	9.2	8.9	8.5	8.3	8.0	7.3	6.2	5.8
Salary Inflation	11.6	11.8	11.8	11.4	11.0	10.6	10.1	9.5	9.1	8.4	7.6

Source: Annual Report 1997, Measurement of Investment Performance Survey for Hong Kong Retirement Schemes (Watson Wyatt Worldwide).

**Annex 2. Summary of Main Features of the MPF**

The government enacted the Mandatory Provident Fund Schemes Ordinance (MPFSO) in July 1995. It established an employment-related, privately managed, provident fund system that covers the entire workforce, and its key features are as follows:

- *Coverage:* All employees and self-employed persons between the age of 18 and 65 must participate unless specifically exempt under the MPFSO or employed for less than 60 days.
- *Contributions:* Both the employer and employee contribute 5% of the employee's monthly cash income. An employee earning less than the minimum level of income (HK\$ 4,000 per month) is not required to contribute but may elect to do so. However, regardless of the employee's decision, the employer must contribute 5% of the employee's income. Contributions in excess of the maximum level of income (HK\$ 20,000 per month) are voluntary.
- *Vesting:* All contributions to the MPF must be fully and immediately vested with the employee's account.
- *Preservation of Benefits:* All benefits derived from MPF contributions must be preserved until the employee attains the retirement age of 65 or ceases employment and attains the age of 60.
- *Portability of Benefits:* All benefits are portable from one MPF scheme to another on change or termination of employment. However, an employee can opt to leave the accrued benefits with the trustee of the previous master trust scheme.
- *Security of Assets:* All contributions to the MPF are secured through strict investment and trust controls and are subject to the provision of a compensation fund in case of losses due to fraud or misfeasance.
- *Administration:* The MPF schemes are administered by private sector firms.
- *Exemption:* Employees covered by statutory pension schemes, such as civil servants, judicial officers, and teachers in subsidized or grant schools, are exempt from the MPFSO. Employees who are covered by registered schemes under the Occupational Retirement Schemes Ordinance (ORSO) are offered the option of joining a MPF scheme or remaining in the ORSO.

### **Annex 3. Guidelines for Asset Investment under an MPF Scheme**

Only investment professionals registered with the Securities and Futures Commission may manage an investment portfolio of a MPF scheme. Portfolios may not: (i) hold more than 10% of any class of security of a single issuer; (ii) have more than 10% of assets in the securities of a single issuer; (iii) make short sales; (iv) borrow for investment purposes; and (v) have more than 70% of scheme assets with foreign currency exposure. The acceptability and limits of the various asset classes are as follows:

#### **Bonds**

- Subject to acceptable credit ratings.
- May have up to 30% of assets placed with any single Government issue.
- May have up to 100% of assets in Government bond issues (spread over at least 6 separate issues).

#### **Equities**

- Must be fully paid-up shares, listed on MPFA approved stock exchanges.
- 10% of scheme assets may be equities listed on non-MPFA approved stock exchanges.

#### **Convertibles**

- Subject to bonds and equity guidelines as applicable.

#### **Warrants**

- May have up to 5% of assets in warrants.

#### **Unit Trusts**

- Subject to the MPF investment, trust and custody regulations in its own right.
- Unit trust must be SFC and MPFA approved.
- No limit on asset exposure to a unit trust by an MPF scheme.

#### **Money Market/Cash Management Funds**

- Permissible subject to SFC approval.

#### **Bank Deposits**

- Must be authorized institutions under the Banking Ordinance.
- Limits of 10% of scheme assets with any single banking institution and 25% with any group of banking institutions. The limit of 10% is extended to 25% for schemes with less than HK\$8 million in assets.
- Amount of an MPF scheme holding must not exceed 5% of a banking institution's capital base.

#### **Restricted Investments**

- Applies to derivatives, securities lending and repurchase agreements.
- Under limited circumstances and strict guidelines.

#### **Disallowed Investments**

- Geared investment vehicles.
- Commodities or commodity based investments.
- Direct investment in property.
- Loans, mortgages and debts.
- Jewelry, works of art and collectibles.



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## Indonesia\*

### Overview of Formal Old-Age Support

Indonesia's main source of formal retirement income support is a provident fund, *Jaminan Sosial Tenaga Kerja* (JAMSOSTEK), which in 1992 replaced a fund known as ASTEK that had operated since 1977. Participation is compulsory for private sector workers in firms with at least ten employees or with a monthly payroll of Rp\$ 1 million.<sup>1</sup> The fund provides employment accident, death and health insurance in addition to lump-sum retirement benefits at age 55. Private sector employees also may benefit to a limited extent from voluntary employer-sponsored pensions.

Employers and/or employees fund JAMSOSTEK's various components from contributions. The rate of contribution to the provident fund is 5.7% of salary, with the employer paying 3.7% and the employee 2%. Employers are entirely responsible for contributing to the employment accident (0.24 - 1.74% of salary depending on the level of risk) and death benefit (0.3% of salary) schemes.

In the public sector, there are two special social insurance-style schemes, one for civil servants (under *Tabungan dan Asuransi Pegawai Negeri*, TASPEN, or The Government Civilian Employees' Saving and Insurance Scheme) and the other for military personnel (*Asuransi Sosial ABRI*, ASABRI, or the Armed Forces Social Insurance Plan). These schemes are far more comprehensive and generous than those under JAMSOSTEK.

TASPEN was established in 1963 to provide lump-sum benefits at retirement (56 years) or upon death during employment. It began to offer life insurance in 1981 through the *Jaminan Hari Tua* (JHT) scheme. Members contribute 3.25% of their monthly salary and in return receive a lump sum roughly equivalent to nineteen times the final monthly salary in the event of retirement or death. The pension scheme under TASPEN started in 1969. The government initially provided sole funding from general revenues, but civil servants have been required to contribute 4.75% of their monthly earnings since 1994. Employees are eligible for pensions at age 50 and after 20 years of government service. The plan is not portable and the worker loses all entitlements in the event of leaving government service. The monthly pension equals 1.875% of the final annual salary times the number of years of service – producing a replacement rate of around 75% of final monthly salary after 20 years. The pension and lump sum benefits under TASPEN provide benefits equal to about 100% of final salary after 35 years of service.

ASABRI, founded in 1971, covers military personnel, civilian employees of the Ministry of Defense, and the police force. While the pension scheme's rate of contribution is similar to TASPEN's, retirement age for military personnel is lower (50 years) and benefits depend on rank. Generally, the monthly pension is 2.5% of the last basic monthly salary multiplied by years of service.

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\* Mukul G. Asher, National University of Singapore (mppasher@nus.edu.sg) prepared this profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

<sup>1</sup> US\$ 1 equaled Rp\$ 2,909 in 1997, while in 1998, it hovered around Rp\$ 10,000.

## **I. Background**

Indonesia, with a population of 197 million and a per capita income of US\$ 1,080 (US\$ 3,310 in ppp terms), was among the most rapidly growing developing economies in the world until the recent East Asian economic crisis. From 1990 through 1996, average annual GNP growth per capita was 5.9% (World Bank, 1998).

The country's population is growing at slower rates and aging. Annual average population growth is projected to be 1.5% for the 1990-2000 period, 1% for the 2000-2030 period, and only 0.5% for the 2030-2050 period. The total fertility rate is expected to decline from an average of 2.93 during the 1990-95 period to 2.16 during the 2025-30 period. Correspondingly, the proportion of the population above age 60 years is predicted to increase from 6.4% in 1990 to 14.1% in 2030. This will equate to a rise in the elderly dependency ratio from 11.3 in 1990 to 19.3 by the year 2025.

Even as Indonesia becomes more industrialized and urbanized,<sup>2</sup> most of its growing work force, whose average annual growth rate should remain almost one percentage point above that of the general population for several decades, continues to be employed in agriculture and the urban informal sector. This implies that the vast majority of Indonesians are likely to continue to rely on family and community support for old age security. Nevertheless, the role of formal social security institutions will grow over time in terms of the provision of adequate and sustainable retirement protection to those in the formal sector, the mobilization of long-term savings and the development of financial and capital markets.

The East Asian crisis hit Indonesia especially hard. Its pre-crisis GDP of US\$ 213 billion dropped to US\$ 92 billion in 1998, leaving a 1998 per capita income of merely US\$ 449 (SG Securities, March 22, 1999). This was due to a combination of the decline in real GDP, which fell by 14.5% in 1998, and a sharp depreciation in the value of its currency. Also, Indonesia's stock market capitalization declined from US\$ 91 billion in 1996 to US\$ 15 billion by end-1998. Much of the corporate sector suffered, and many banks became effectively illiquid or insolvent. Indonesia has been slow to recover from the crisis in comparison to its neighbors (World Bank, 2000).

In addition to the legacy of the economic crisis, Indonesia currently faces a political transition from authoritarian rule to a more polycentric polity, which is proving difficult since development of the institutions of governance, both political and corporate, received inadequate attention during the decades of rapid economic growth. Given the time consuming nature of institution building, rapid resumption of high and sustained economic growth is unlikely.

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<sup>2</sup> In 1997 the share of industry in GDP was 42%, and in 1995 34% of the population lived in urban areas.

## **II. Analysis of the Pension System**

### **Benefits Provision**

The actual benefits provided under JAMSOSTEK are entirely inadequate, as an average retiree under the plan will receive only 10% salary replacement after 35 years of contributions (based on current contribution and past investment performance) (World Bank, 1996). The low benefits are a function not only of low contribution rates but also high administration costs and poor returns on investment.<sup>3</sup> In fact, it would appear that members would do better by simply depositing their entire contributions in a normal savings account with a bank.

In terms of expenditure, JAMSOSTEK paid out Rp\$ 6.38 billion in benefits in 1995, compared to Rp\$ 2.2 billion in 1991. Close to 90% of the total covered provident fund and death benefits – the remainder went towards employment accidents. At end-1996 provident fund balances per member were Rp\$ 353,738 (US\$ 41) while the total assets were only Rp\$ 4,361 billion (US\$ 501 million).

In contrast to JAMSOSTEK, the contribution-benefit link of TASPEN's pension scheme is very weak, and benefits are extraordinarily generous, especially compared to the modest contributions received from members. The total amount of pension paid out increased from Rp\$ 1.99 trillion in 1989 to Rp\$ 3.37 trillion in 1995, equating to a rise in average pension from Rp\$ 106,116 to Rp\$ 183,036 per month (TASPEN, 1995). The scheme's contributions and other income cover only 22.5% of the costs of benefits, leaving the government to finance the remaining 77.5% from its general revenues. In 1994 the pension plan had assets worth Rp\$ 6.3 trillion and accrued liabilities amounting to Rp\$ 21.4 trillion, leaving the government with huge unfunded liabilities (World Bank, 1996). The government's payment towards civil servants' pensions amounted to 22% of its total wage bill in 1995; this is projected to increase to 66% by the year 2020. This is unsustainable from the fiscal as well as social and economic perspective. Resolving the problem of the contingent liabilities has become even more urgent in view of the reduced revenue base and increased expenditure obligations of the government arising from the economic crisis (Asher and Heij, 1999; World Bank, 2000).

The Indonesian government justifies generous benefits for state employees on the grounds that their wages are considerably lower than their counterparts in the private sector. There is some merit to this argument, as public sector Grade 2 salary is 2.7 times less than the equivalent-level private sector salary; the differential is almost five times at Grade 4 (Wirutomo, 1991).

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<sup>3</sup> JAMSOSTEK's contribution rates are low most probably because of the political opposition they would otherwise raise from employers.

While TASPEN's JHT scheme (life insurance, lump sum benefits) is supposed to be self-funding, the contributions are insufficient to meet the commitments because of the low contribution rate, low returns on investment and high administrative costs. In 1995, TASPEN paid out lump sum benefits totaling Rp\$ 393 billion to 100,837 members, compared to payouts of Rp\$ 80.5 billion to 70,800 members in 1989. The average size of the payment was Rp\$ 3.9 million in 1995, which was three times larger than the amount six years earlier (TASPEN, 1995). The share of total benefits as a portion of total revenues increased from 78.9% in 1991 to 92.5% in 1995. The increase in size of benefits payment partially reflects a rise in members' wages.

ASABRI paid average benefits of Rp\$ 2.1 million in 1994, a substantial increase from Rp\$ 1.34 million five years earlier. There is a high degree of confidentiality surrounding the scheme, and as a result, little data is available.

### **Coverage**

The number of employers participating in the JAMSOSTEK program almost doubled between 1991 and 1995, rising from 33,500 to 60,600. Still, in 1995, only 9 million workers (10.6% percent of the labor force) belonged to the scheme, compared to 4.7 million (6.0%) in 1991 (Purwoko, 1994; TASPEN, 1995). This equates to only one-quarter of all paid workers in the country. Moreover, of those covered, only 25% are in compliance with contribution requirements. The size of the formal sector is growing faster than JAMSOSTEK's coverage – the number of paid workers not covered by the scheme increased from 16.4 million in 1981 to 22.5 million in 1994. However, inflation and growth in firm size should expand coverage in the future without any change in participation requirements (i.e., relating to number of employees and amount of payroll). Government efforts so far appear to have concentrated on extending coverage to casual workers by encouraging employer participation in the employment accident and death benefits schemes but not the provident fund or health care components. Seasonal and unskilled workers are particularly vulnerable to non-coverage because they tend to return to their villages after working in urban areas, which makes the task of record keeping very difficult.

Realizing that the JAMSOSTEK's provident fund is insufficient, the government has encouraged private firms to voluntarily establish provident fund-type plans for their employees for several decades now. The number of firms that had plans increased from 4 in 1974 to 160 (out of the total of 165,000 employers in the formal sector) in 1994. Such plans cover only about 10% of formal sector workers despite the availability of concessional tax treatment for employer contribution since 1992 (World Bank, 1996). Most of these firms are large state owned enterprises, which is not surprising because small and medium-sized firms find it cumbersome and costly to comply with the requirements. While many of the large companies, including state-owned firms, have been moving towards funding pension plans in

an actuarially sound manner (at least until the economic crisis broke), many other firms whose plans are not approved by the regulators have unfunded pension liabilities.

Meanwhile, civil servants and military personnel account for a large portion of the population covered by social security programs in Indonesia, consuming much of the total public spending on the item (Vittas and Skully, 1991). TASPEN had 4 million members in 1996, which represented a small increase from 3.74 million in 1989, and the number of pensioners grew from 1.14 million to 1.54 million during the same period. In early 1996 membership for ASABRI stood at 0.5 million.

### **Investment Policies and Performance, Administration, Regulation and Taxation**

Total assets of all pension plans at end-1994 were Rp\$ 21.1 trillion (5.6% of GDP and US\$ 9.6 billion).<sup>4</sup> The voluntary employer-sponsored pension plans had the largest share of the total assets (45%), followed by the civil servants' pension program administered by PT TASPEN (39%), the JAMSOSTEK program (12%) and ASABRI and others (4%).

The aggregate asset allocation at end-1994 of all pension funds was as follows: stocks, 8%; bonds, 11%; bank deposits, 41%; short-term government paper, 30%; and, properties and others, 10%. There was little variation in asset allocation among different pension funds. The Social Security Law (Republic of Indonesia Act No. 3 1992) excludes investment in foreign assets, and as a result, country risk diversification is absent. Much of the investment is also short term, while pension liabilities are long term, which creates a mismatch between assets and liabilities. This is also evident from the distribution of JAMSOSTEK's assets, which are dominated by deposits (Annex 1).

While no detailed data on the rates of return are available, Leechor (1996) estimated that during the 1988-1995 period, the real rate of return on employer-sponsored plans was between 6% and 8%, a fairly attractive rate. Many of these plans are managed in-house, and only a small proportion of assets have been entrusted to professional investment companies (Koo, 1997). According to a 1996 survey of 450 Indonesian pension funds, 54% of the assets were in time deposits, while only 10% each were in local equities and bonds, with the rest in property and other assets. Tam (1997) reported that this situation might change as investment patterns of pension funds shift in favor of equities.

In contrast to the employer-sponsored plans, in 1994, real investment return by PT ASTEK and PT TASPEN was zero and 1.3% percent, respectively. This compares quite unfavorably with the real rate of return on time deposits of 9.4% during the 1988-1995 period.

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<sup>4</sup> Unless otherwise noted, the information on investments is from Leechor, 1996.

Both PT TASPEN and PT ASTEK incur extremely high administrative costs. This is in spite of the fact that the housekeeping function (i.e., maintaining records, processing claims, collecting contributions, levying penalties on defaulters, disbursing benefits and providing user friendly information and service) performed by these two organizations is of fairly low quality. In 1994 administrative costs as a percentage of contributions amounted to 7.0% for PT TASPEN and 11.7% for PT ASTEK. In comparison, for Malaysia the corresponding figure for 1997 was 1.6%.

The JAMSOSTEK provident fund for private sector employees is effectively unregulated.<sup>5</sup> Regulation of other funds does not appear to be systemized or rigorous. Even before the extent of the deep economic crisis became evident, according to press reports, the government asked some of the pension funds to shift their assets to the country's Central Bank.<sup>6</sup> It is also probable that the Indonesian Bank Restructuring Agency has used the pension funds to finance part of the take over of most of the 215 banks currently operating in Indonesia. The government likely used JAMSOSTEK funds to support the exchange value of the Rupiah (JAMSOSTEK Factbook, 1996) and for certain political purposes, such as passing bills in the Parliament (Business Times, Singapore, December 4, 1997). Thus, JAMSOSTEK does not enjoy functional autonomy.

In terms of taxation, the regime is partial EET, i.e., exempt (contributions), partially exempt (investment earnings) and partially taxed (benefits). For the employer-sponsored pension plans, income is not subject to taxation if it is in the form of: (i) interest and discounts from deposits, certificates of time deposits and savings from banks located in Indonesia (or the Bank of Indonesia), (ii) interest from bonds traded on the Indonesian stock exchange, and (iii) dividends from stocks of companies listed on the Indonesian stock exchange. Under these circumstances, pension fund resources arising from some securities, property and direct investment represent taxable income. The lump sum benefit is taxable on a graduated basis above a certain threshold. Furthermore, JAMSOSTEK is a limited liability company, meaning that it must operate on a commercial basis. Therefore, it is subject to income taxation, which is quite unusual for a social security organization (Purwoko, 1996).

### **III. Reform Issues and Options**

The main problems in the formal social security system in Indonesia, which have been accentuated by the recent economic crisis, include the following:

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<sup>5</sup> Ostensibly, the fund is under the purview of the Manpower Ministry.

<sup>6</sup> About 40% of the assets under management are not posted to individual accounts (World Bank, 1996), which is vital for a scheme based on individual savings.



- Limited coverage. At most, about 10% of the population, or around one-fifth of the labor force, are covered by the formal social security arrangements. Most of the participants are civil servants, armed forces personnel, and employees of large corporations.
- Large contingent liabilities in the public sector schemes. The civil servants and armed forces personnel receive very high replacement rates not covered by the contributions or the investment income. The government pays for the unfunded portion from its current revenue. Moreover, some of the pension benefits, such as the health benefits, are in the form of services to be provided rather than monetary amounts. This makes the situation even more precarious since health care costs usually rise at a faster rate than overall inflation. Moreover, the high import dependence of Indonesia's health care system is likely to significantly increase the budgetary burden of fulfilling health care obligations due to sharp depreciation of the currency. At the same time, the economic crisis significantly eroded the revenue base of the government. As a result, the urgency for tackling this issue has become much greater.
- Private-public sector inequity. JAMSOSTEK's retirement provision is a provident fund, in which benefits are directly linked to contributions. In contrast, the public sector pension schemes use benefits formulas related to final earnings. This can result in strategic manipulation of the system to secure high final salary (and, thus, higher benefits) and even regressive redistribution. Moreover, the defined-benefit public pension plans are non-vested and non-portable, which adversely affects labor market efficiency. Improving the benefit-contribution link at the very least through a move toward fuller funding of the system and the creation of transfer mechanisms of accumulated pension rights would help reduce these distortions.
- High administrative costs. The costs of administering social security in Indonesia are generally out of line with the quality of services provided and in comparison to social security organizations in neighboring countries. Inefficiencies in the housekeeping function also dilute the advantages expected from the defined contribution, fully funded JAMSOSTEK system.
- Inefficient investment policies and performance. Indonesia has granted monopoly to PT JAMSOSTEK for investment of publicly mandated private sector pension funds. Furthermore, most voluntary plans are managed in-house. As a result, a competitive fund management industry has yet to develop. Indonesia's balanced budget law (under which the receipts including foreign project and program aid must equal total budgetary expenditure) has meant that a government debt market has not evolved in any significant manner. The lack of suitable investment instruments and geographical diversification due to statutory restrictions has contributed to the poor investment performance. Another factor has been the lack of professional expertise available to the pension fund authorities.

Both the private and public sector social security arrangements need to undergo significant reform to address these limitations. Improvement in the efficiency of the housekeeping function would offer a relatively quick and achievable first step. The government may also consider providing appropriate long term investment instruments for the pension funds and permitting diversification among assets and across countries, albeit under enhanced regulation and supervision. At this stage of Indonesia's development, any effort to permit individual choice over investment portfolios must be considered very carefully. In conclusion, there are some reform options currently within the existing capacity of the social security institutions, but it would be unrealistic to expect rapid progress, given the scope and the magnitude of the problems facing policy makers during the economic and political crisis.

**Annex Investment Allocation of JAMSOSTEK Funds, 1991-1996**  
(Billions of Rupiah)

Year	Total Funds		Deposits		Equity Participation		Bonds		CBI <sup>a</sup>		Stocks		Property	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
1991	1,074	100.0	204	19.0	38	3.5	123	11.5	421	39.2	203	18.9	24	2.2
1992	1,408	100.0	410	29.1	26	1.8	194	13.8	490	34.8	257	18.3	30	2.1
1993	1,842	100.0	783	42.5	61	3.3	302	16.4	472	25.6	191	10.4	32	1.7
1994	2,481	100.0	1,466	59.1	61	2.5	259	10.4	521	21.0	141	5.7	33	1.3
1995	3,218	100.0	2,003	62.2	84	2.6	365	11.3	630	19.6	198	6.2	22	0.7
1996	4,361	100.0	2,912	66.8	83	1.9	388	8.9	637	14.6	297	6.8	43	1.0

<sup>a</sup> CBI: Certificates of Bank Indonesia, which is the Central Bank.

Source: Calculated from Indonesia, JAMSOSTEK, 1996 Factbook, Table 15, p. 35.

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## Republic of Korea (South Korea) \*

### Overview of Formal Old-Age Support

Korea implemented a social insurance system – the National Pension Scheme (NPS) – with old-age benefits in 1988. It is a publicly managed, defined benefit scheme available to all citizens. Participation is mandatory for employees of firms with 5 or more workers, farmers, fishermen and rural self-employed aged 18-59. In April 1999 the government required employees of small firms (less than 5 workers) and the self-employed in urban areas to join the scheme.

Unreduced old-age pension benefits are available at age 60 to those with 20 or more years of service. Several other categories of workers, including those aged 45-59 when the scheme began and insured for 5 years after that time, qualify for reduced pensions. Currently the system is paying primarily death and disability pensions and some reduced old-age pensions. It will only provide regular pensions when the first cohort of individuals becomes eligible in 2008 after having fulfilled the 20 year service requirement.

The retirement benefit is price-indexed and derived from two components – the average economy-wide wage and the workers' own indexed earnings – to whose sum an accrual rate of 1.5% is applied.<sup>1</sup> The target replacement rate is 60% after 40 years of service.

Contributions from the insured (4.5% of earnings) and employers (4.5% of payroll) finance the NPS. Farmers, fishermen, self-employed and employees of small firms pay at a rate of 3% of earnings, which will rise gradually to 9% by 2005. Since benefit payouts are currently small in relation to incoming contributions, the system has built up a substantial reserve fund (around 10% of GDP).

In addition to the NPS, the Labor Laws require employers to pay lump-sum retirement allowances equivalent to 30 days (8.33%) of the average wage per working year to employees with at least one year of service. Other formal sources of old-age income support include tax-favored individual savings, employer-sponsored retirement plans and safety nets for the poor elderly. In 1997, the latter provided means-tested cash and in-kind assistance with an average monthly cash value of about 120,000 won (US\$ 126)<sup>2</sup> but, because of considerable stigma, reached only 265,000 persons (less than 10% of those over 65).

Three special occupational schemes, which are more mature than the NPS, cover civil servants, military personnel and private school teachers (since 1960, 1963 and 1975, respectively). They have relatively higher benefits and contribution rates. Partly because of this, there is no mechanism for transferring accumulated pension rights among the schemes and the NPS, which limits labor mobility.

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\* Yvonne Sin, The World Bank, HDNSP (ysin@worldbank.org) and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) prepared this profile.

<sup>1</sup> For service prior to 1999, the accrual rate was 1.75%, applied to 100% of the average economy-wide wage but only 75% of workers' own indexed earnings.

<sup>2</sup> In 1997, 951 won equaled US\$ 1.00.

## **I. Background**

Korea has experienced high economic growth over the past four decades and now possesses the world's 11<sup>th</sup> largest economy, accounting for 7% of East Asia's GDP. Between 1965 and 1995, real per capita income grew at an average rate of 7.5%, one of the highest rates in East Asia.<sup>3</sup> This success was due in part to the unique combination of a strong government steering role and an entrepreneurial approach. For example, the government sponsored large-scale adoption of technology and management expertise from Japan and other industrialized nations. It also accelerated the development of export industries and encouraged the import of machinery and raw materials over consumer goods. In the late 1980s Korea used public works programs to transfer income and improve infrastructure. Under these conditions the economy shifted rapidly from an agricultural to an industrial base.<sup>4</sup>

With steady economic growth, the overall standard of living in Korea has improved, evidenced by good performance on social indicators such as life expectancy, infant mortality and secondary school enrolment. The poverty rate among urban households fell from 20.4% in 1975 to 7.4% in 1995. However, industrialization and urbanization have changed income distribution and family-care patterns, creating vulnerable groups in the process. By the eighties new policy efforts focussed on improving equity, promoting more balanced growth (among industrial sectors and between rural and urban areas), and dealing with social welfare issues, including care for the needy.

Korea's population is aging rapidly due to declining fertility and increasing life expectancy. The total fertility rate fell from 4.27 in 1970 to 1.75 in 1995, a decline of nearly 60%. The wider use of contraception – currently at 80.5% compared to 44.2% two decades ago – and higher female educational attainment and labor force participation explain this rapid drop. Male life expectancy at birth was over 70 years in 1995, up from 59 in 1970, and female life expectancy rose from 64 to 76.4 during the same period. As a result of these trends, the proportion of the population aged 65 and over currently stands at 5.6% (slightly higher than regional average, around 4%) and is expected to reach 23% in 2040. The average age is expected to rise from 31.9 years in 1997 to 43 in 2040, while the elderly dependency ratio will increase from 7.9 in 1995 to over 38.6 in 2040.

Korea's labor force has become highly skilled and educated as the economy has shifted from agriculture to industry and services. Of the total labor force, about 87.4% (of whom about 60% were male and 40% female) were from non-farming households in 1996.<sup>5</sup> Over 73% of the adult workforce, approximately 20 million people, were graduates of middle school, and

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<sup>3</sup> GDP per capita (in ppp terms) equals about US\$10,550, which is among the highest in Asia – lower only than Hong Kong and Singapore and comparable with the smaller economies of the European Union.

<sup>4</sup> The share of agriculture in GDP declined from around 24% in the mid-seventies to less than 6% in 1997.

<sup>5</sup> The labor force in 1996 numbered around 21.1 million, 62% of the total population aged 15 and over.

nearly 58% were high school graduates. Until the recent economic downturn overall unemployment had been very low, averaging around 2.3% throughout the early to mid-nineties. As demand for skilled workers grew, the resulting labor shortage, coupled with the prevailing low unemployment at the time, led to large wage increases – wages in Korea have been rising faster than in other rapidly industrializing countries. As a result, many low-wage operations shifted to China and Southeast Asia, while Korean manufacturers now concentrate on higher value-added, medium to high technology commodities, products and services.

Along with industrialization, Korea has experienced rapid urbanization and some of its characteristic drawbacks. Currently, over 30 million Koreans, or about three-quarters of the total population, live in the major urban areas, which occupy only about 3% of the land. As a result, urban Korea has serious problems concerning housing, transportation, and pollution. On the other hand, rural Korea – containing only 5% arable land – suffers from a lack of social services and public utilities related to education, health and sanitation. Data from the Economic Planning Board indicate that the difference in income levels between farming and non-farming households widened throughout the eighties and into the nineties, thereby contributing to greater disparities in living standards between rural and urban communities.

Despite rapid socioeconomic change, the influence of Confucian philosophy on Korean society still renders its elderly members less dependent on formal social safety nets. In fact, recent statistics show that only 3% of the population believe that social welfare should provide for the elderly and that 62% of elderly parents receive financial support from their children, although this is more prevalent in rural than urban areas. As such, the government encourages family-based support through tax privileges, housing loans and special monthly allowances to family members who support their elderly parents.<sup>6</sup>

Korea's economy began to slump in 1996, and the East Asian crisis added to its decline. The economic downturn and accompanying corporate bankruptcies and credit squeezes caused lay-offs, real wage declines, weak demand for new labor market entrants and falling margins in the informal sector. GDP shrunk by 5.8% in 1998, and unemployment jumped from 2.5% just before the crisis to 8.7% in February 1999, before dropping back to 4.6% in October, 1999 (World Bank, 2000). Growth has impressively resumed, and Korea is leading the other economies of the region in the recovery from the crisis.

The effects of the crisis on Korea's elderly are still not clear. Nonetheless, there is evidence that poverty rates were higher among the old even before it began. According to a 1990 study by the Korean Rural Economics Institute, the incidence of poverty among the elderly was more than three times greater than among those under 30. A disproportionate number of households headed by persons (especially females) over 60 fall into the low-income category in urban areas. It is probably valid to assume that because of the tradition of filial piety,

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<sup>6</sup> Based on the Social Statistics Survey, 1997.

children still feel obligated to support elderly parents. However, the unemployment and wage cuts during the crisis likely subjected the relationship between the elderly and their extended families to greater stress.

## **II. Analysis of the Pension System**

### **Benefit Design (Contribution-Benefit Link), Redistribution and Coverage**

The four publicly mandated and managed social insurance pension schemes (for the private sector – NPS, civil servants, private school teachers and the military) all present distortions in benefit design. In the case of the NPS, the benefits formula equally weighs an employee's average monthly wage during the 40-year contribution period (revalued for wage growth) and the average monthly wage of all insured during the previous year, which disrupts the benefit-contribution link and creates a redistributive replacement rate schedule in which previous income level relates inversely to the benefit rate. Although this is a policy mechanism for the government to create income transfer from lifetime high-income to low-income workers, it introduces distortions into the labor market, such as evasion and worker movement to the informal sector.

In contrast to the NPS, the benefit formula of the occupational schemes (for civil servants, private school teachers and the military) applies an accrual rate of 2.25% per annum for each year of service to the final monthly wage, which results in very generous replacement rates on the order of 75% of final wage – the average target replacement rate for the NPS is currently 60%<sup>7</sup> (see Annex 1 for general characteristics of the four contributory schemes). This type of arrangement also disrupts the benefit-contribution link, but in a different way than the NPS does. High-income individuals may benefit from the soft contribution-benefit link through their delayed entrance into the labor force (resulting in relatively less contribution) and steeper age-earnings profiles (equating to higher pension entitlements), which can lead to regressive redistribution.

The overall result is a situation in which distortions exist throughout the retirement income system and different types of redistribution regimes and benefit levels apply to different classes of workers (i.e., those under the NPS vs. the public sector schemes). Moreover, wage indexing of benefits reinforces the generosity of the occupational schemes, while, in contrast, price-indexation applies to the NPS pension.

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<sup>7</sup> Together the NPS and mandatory retirement allowance will provide replacement rates of up to 85% of final salary, which is extremely high by international standards.



The NPS has provided coverage to firms with five or more employees since 1988.<sup>8</sup> In 1995 participation in the NPS became obligatory for the self-employed in rural areas, farmers and fishermen. As seen earlier, in April 1999, the government expanded coverage to include the urban self-employed and small firms. After the latest round of expansion, the NPS covered about 47% of the labor force (also see Annex 1 for effective coverage rates), a significant margin below the ambitious target of about 68% of the labor market, and far short of universal coverage. Approximately 5 million workers will remain outside the system – they include part-time workers, household servants, the unemployed and those self-employed persons who do not declare income. Also, the previous policy of allowing workers with less than a full year of insured status to collect their contributions with interest in a lump sum has effectively reduced coverage.<sup>9</sup> Finally, due to the lack of portability of pension rights, those under the three special occupational schemes (around 1.3 million) will also remain outside the NPS system, even though they receive richer entitlements from their own plans.

### **Fiscal Sustainability**

All of the four social insurance pension schemes will eventually operate on a pay-as-you-go basis as they mature. Since the NPS is relatively immature (i.e., it has a high ratio of contributors to pensioners), it generates a current surplus (i.e., incoming contributions exceed outgoing payments) of nearly 2% GDP per annum.<sup>10</sup> Reserves equal almost 10% of GDP and are growing. Despite the NPS's seemingly healthy position, the system is fiscally unsustainable in the medium to long term. Coverage expansion to small firms and the self-employed will add to the short run surpluses and delay maturation, but the World Bank's financial projections indicate that the implicit pension debt was already 30% of GDP in 1995 and will increase to 195% by 2050.<sup>11</sup> Reserve funds will be depleted by 2050. The equilibrium contribution rate (i.e., a rate that makes the present value of the current balance equal zero) amounts to around 20%, while the contribution rate required to keep the current balance from going negative could reach as high as 35% by 2075. If contribution rates cannot be raised, any resulting deficits will have to be passed onto the government budget, to be paid for by future generations. Alternatively, the government could cut benefits or finance the system through budget transfer.

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<sup>8</sup> The retirement allowance program covers the same group of workers. However, it does not reach the self-employed and workers in small firms that recently began to participate in the NPS.

<sup>9</sup> Although the new pension law has removed this provision, the fundamental goal of old-age income insurance for a considerable number of contributors has already been distorted.

<sup>10</sup> Only 113,000 persons over the age of 60 received benefits from the NPS in 1998. Meanwhile, there were 10.1 million contributors.

<sup>11</sup> The calculations assumed that direct credits to public projects will be phased out (as scheduled) and that pension reserves will accrue at market rates of return (much higher than the rate of average wage growth). In the event that these assumptions do not materialize, the deficit situation could be worse.

Although official projections are not available for all of the occupational schemes, they are already running or will soon run deficits. For example, the government already made transfers equivalent to 0.2% of GDP to the military pension scheme in 1997. The government employee scheme has used up its reserves and began to run a deficit in 1999. World Bank projections indicate that this deficit could grow to around 3% of GDP by 2030.

The retirement allowance scheme now also represents a non-funded source of liability to both the private sector and the government. Profitable firms have paid these allowances from current reserves and were not obligated to establish pre-funding. In 1999 externally held assets likely backed up only around 10% of gross liability; companies either had not set aside the rest of the resources required to finance the scheme or placed them with insurance companies in order to gain tax advantages but then received the funds back on loan as working capital. As a result of this situation, during the crisis, many firms were unable to meet their commitments in a context of decreased liquidity and bankruptcy. Moreover, government has essentially assumed a portion of the liability – for which estimates are unavailable – through the creation of the Wage Claim Guarantee Fund. The fund is financed by a 0.2% tax on the wage bill but creates an implicit public debt in the event that its resources are insufficient to cover claims.

### **Administration, Investments and Tax Treatment**

The NPF management system is quite complex and subject to political pressures. The Committee of National Pension Fund Operation (CNPF), which is co-chaired by the Ministers from the Ministry of Finance and Economy (MOFE) and the Ministry of Health and Welfare (MOHW), regulates and supervises the fund. The committee membership is supposedly tripartite, but given its composition (10 from the government and 5 member representatives), the government has predominant power. For instance, the MOHW, in consultation with MOFE and the State Council, prepares guidelines on fund operation for approval by the President. Hence, there is little chance for the non-governmental members to influence the process. One of the purposes of the regulatory guidelines is to define the investment policy, including the distribution of investments by sector (e.g., public, financial and welfare) and by product (e.g., equity and bonds). As a result of the protocol that controls investment decisions, the NPF is more prone to end up with low performance products.

The Public Fund Management Act (PFMA), which allowed managers to invest a small portion of the NPS excess cash flow in market-based securities, automatically earmarked two-thirds of surpluses to finance other government activities that generally earn below market rates of return – the rate of return on NPS investments has been roughly the same as the rate on one-year treasury bills. Another part of the portfolio consists of non-traded government securities (in the form of promissory notes) and membership loans that also give low returns. Although changes to the PFMA in 1998 are phasing out the mechanism of

automatic transfer of NPS funds to the central government, the practice may still occur on a discretionary basis and appears to have continued in 1999-2000.

Regulations that govern Korea's pension funds and insurance products rest with various authorities – Financial Supervisory Commission (FSC), CNPF and MOL. In general, the regulations are not dynamic, products are not competitive, and information concerning the funds and the respective accounts are not readily available. Requirements to meet solvency and liquidity standards are weak by international standards, and investment managers seldom engage in asset/liability management. Rating agencies have a limited role and lack credibility, thereby facing limitations as watchdogs of different securities issuers.

By and large, the Korean tax system treats pension plans according to the partial “tax-exempt-exempt” of contributions, accumulations and benefits – or pre-paid expenditure regime (Annex 2). It deals with different retirement savings instruments in a roughly equivalent manner, thus establishing some fairness between those who are able take advantage of voluntary savings vehicles and those who are unable to do so. For example, individual pension savings accounts (IPSAs)<sup>12</sup> offered by banks, investment trust companies and insurance companies receive the same tax treatment as the NPS. In the case of retirement allowances, special exemptions produce an effective tax rate of around 2% of benefits for most workers. However, the practice of only partial taxation of contributions – employers are exempt under the NPS and public sector schemes – can lead to an overall regressive tax structure since it results in a shift in emphasis to flat-rate, consumption-based taxes (regressive), which everyone pays, while effectively reducing the amount of taxable income in the formal sector, where the higher-income earners are likely to be found.

### **III. Reform Issues and Options**

Up until the early 1980s, Korea's welfare policy focused on poverty reduction through growth-oriented economic policies. Although in the 1990s there was greater awareness of the need for social programs and services, the country still lacks a comprehensive social security system that would harmonize economic growth with social welfare. Generally, there is a need to review old age retirement income provisions and strengthen the safety net.

The World Bank advocates the use of the multi-pillar model by the Korean government and the development of a comprehensive reform strategy. As a result of the Structural

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<sup>12</sup> Qualification is contingent upon a commitment of a stream of contributions of at least ten years, and funds cannot be withdrawn before age 55. Typical contributions amount to around 2-5% of salary, and in June 1996 the total value of these accounts was 10.8 trillion won (3% of GDP).

Adjustment Loan (SAL) II negotiations, the new Pension Reform Task Force<sup>13</sup> will prepare a White Paper outlining a reform proposal addressing issues such as:

- Sustainable financing and integration of the NPS and other retirement provisions. The government established the NPS as well as the three public schemes when the population was still relatively young. All of the schemes promise high replacement rates (60% with 40 years<sup>14</sup> and 76% with 33 years respectively). As the schemes mature, they will require adjustment in order to approximate long-term financial stability.

In determining how to best handle the schemes' underlying financial problems, policymakers should also address equity considerations and the relative emphasis on savings versus redistribution. While the NPS has a clear redistributive goal, the public schemes use earnings-related formulas to determine benefits, which can result in the regressive lifetime transfer of income from lower to higher income workers. One reform option is to require new civil servants, teachers and military personnel to join the NPS and gradually phase out the old individual schemes.

Reform planning should also consider other provisions such as the retirement allowance mandate and voluntary personal plans. Under current economic conditions, the mandate represents a dangerous unfunded liability to companies and the government. It could be phased out, with existing obligations paid by corporations and the Wage Guarantee Fund. Alternatively, the employer contribution could be entirely incorporated into the NPS or a private pension system. Also, estimating the effects of changes in the parameters of the mandatory savings system on voluntary savings could help avoid the crowding-out of this important complementary mechanism of retirement support.

- Expanding coverage. Only recently, coverage under the NPS expanded to encompass the urban self-employed and small firms. However, the Korean Internal Revenue Service held income data for only 23% of the urban self-employed in 1998. Under these circumstances, it will be very difficult for the National Pension Corporation to collect proper contributions and enforce coverage. When farmers and fishermen began to participate in 1995, their reported income on average turned out to be less than half their actual income. It is likely that a similar phenomenon will occur with the levying of a payroll tax of 3% against the urban self-employed and small firms.

Since much of the labor force remains outside the NPS, the government might improve the efficiency and equity of old-age income protection by restructuring the system. One option involves strengthening and expanding the safety net (i.e., a general tax-based

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<sup>13</sup> Members of the Task Force include representatives from each of the three special occupational schemes, academicians, research institutions, the financial sector, trade unions and officials from MOHW.

<sup>14</sup> Replacement rate for the NPS was 70% up to January 1, 1999 and 60% for service thereafter.

means of redistribution) while moving to a flat-rate pension, which would provide a broader basis of security to the elderly population and reduce the rationale for staying out of the system. This could even facilitate the process of expansion to the urban self-employed and small firms.

- Improving investment and administration practices. The NPF's investment policy requires amendment in order to provide higher returns. The government recently began phasing out direct credits to public projects. However, optimal portfolio allocation can only be achieved if the pension fund management process is made more transparent and efficient. CNPF should receive more autonomy, with little or no government interference and without the presence of MOHW as an intermediary. It will also be important to establish a governance structure that can protect the NPF from any political directives or pressures (e.g., not phasing out direct credits for public investments according to the timetable). In this case, an independent "Office of the Actuary" that reports directly to the President could be an effective means of managing contingent pension liabilities and the related political risks while ensuring disclosure of consistent information concerning the funded status of the old-age pension system.
- Stimulating the growth of financial markets. Korea's NPS scheme, if maintained in its current state, will eventually operate on a pay-as-you-go or partially funded basis after payouts have begun. As demonstrated by financial projections, a higher contribution rate would be necessary to sustain it. Such an increase in forced savings through the NPS could crowd out private savings, in turn affecting the marketability of pension and insurance products and, by extension, capital markets development. The allocation of accumulated savings to public investments with low productivity, as opposed to private markets with growth potential, can also negatively affect capital markets. On the other hand, if the NPS's significant reserves were directed towards market-based securities, they would stimulate the financial markets. The accrual of pension assets also increases the proportion of long-term national savings, thereby lengthening the maturity of debts, which in turn generates more equity-based financing enterprises. However, when a single fund is very large, special considerations must be given to the possibility of market dominance and conflicts of interest.

### Annex 1. Key Parameters of Four Publicly-Managed Pension Schemes

Scheme	Financing	Benefits	Benefit Spending (% of GDP)	Reserves (% of GDP)	Contributors	Beneficiaries 3/	System Dependency Ratio (%)	Coverage (Cont./Labor Force) <sup>4</sup> (%)
<b>NPS</b>	9% payroll tax <sup>1</sup> (4.5% employee, 4.5% employer); government pays administrative costs and contributions for some low-income groups	rr = 60% of lifetime average wage; redistributive	0.4	10.0	10,113,000	201,950	2.0	46.5
<b>Civil Servants</b>	15% payroll tax (7.5% each, employer and employee)	rr = 76% final monthly wage for 33 years; earnings-related	0.8	0	952,154	81,991	8.6	4.4
<b>Private School Teachers</b>	15% payroll tax <sup>2</sup> (7.5% each, employer and employee)	rr = 76% final monthly wage for 33 years; earnings-related	0.0	0.8	206,278	14,068	6.8	1.0
<b>Military</b>	13% payroll tax; government transfers	rr = 90% final monthly wage; earnings-related	0.2	0	153,071	50,801	33.2	0.7

rr = replacement rate

<sup>1</sup> currently varies by covered group; <sup>2</sup> government pays part of employer's contribution; <sup>3</sup> excludes lump-sum beneficiaries under retirement age; <sup>4</sup> labor force figure in calculations is 21,476,000.

Note: data from late 1990s.

## Annex 2. Tax Treatment of Pension Schemes

Scheme	Contribution	Returns	Benefit Payment
<b>National Pension Scheme</b>	employer - exempt employee - taxed self-employed - 40% exempt up to 720,000 won per annum	exempt	exempt
<b>Occupational Schemes</b>	employer - exempt employee - taxed	exempt	exempt
<b>Retirement Allowance (Corporate Pensions)</b>	50% exempt; <sup>1</sup> 100% insured is exempt	not applicable exempt	taxed at a low rate varies by amount
<b>Individual Pension Savings Account<sup>2</sup></b>	40% exempt up to 720,000 won per annum	exempt	exempt

<sup>1</sup> The 50% refers to book reserves limited to 10% of total wage bill. The 100% refers to insurance premium.

<sup>2</sup> Penalties apply for withdrawal before age 55 and/or 10 years of contribution.

Source: Palacios, 1998.

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## Malaysia\*

### Overview of Formal Old-Age Support

Malaysia has several social security programs for various types of workers. The Employees Provident Fund (EPF), established in 1951 (and now under the 1991 EPF Act), is a mandatory retirement savings scheme for the private sector. It also permits pre-retirement withdrawals for housing and health care.

The Federal Constitution guarantees special pension benefits for public employees. The Pensions Trust Fund Act 1991 set up the Pensions Trust Fund (PTF), which is the second largest component of the provident and pension funds system (PPF), behind to the EPF. Financing for the PTF comes entirely from the government budget and employer contributions (i.e., it is non-contributory for employees). Pension benefits are based on a formula of 7.5% multiplied by months of service, to a maximum of 25 years of service. The normal pensionable age is 55, quite low in comparison to life expectancy at birth of around 70 years. After 10 years of service an employee can take gratuity benefits, but the pension is frozen until retirement. No severance pay is given if an employee resigns. Widows continue to draw a pension after the beneficiary dies. The Fund also provides health benefits for employees and their dependants; however, the government effectively rations health care for pensioners through queuing.

The third most important PPF institution is the Social Security Organization (SOCSO). In 1971 it began to enforce the Employees' Social Security Act of 1969 and became a Statutory Authority in 1985. Unlike the EPF, SOCSO is funded on the basis of the social insurance principle and offers an Employment Insurance Scheme, covering accidents at work and occupational diseases (to a degree), and an Invalidity Pension Scheme, providing invalidity or death coverage. While there is no wage ceiling for the EPF contributors, the wage ceiling for SOCSO is RM 2,000 per month.<sup>1</sup> Employers contribute 1.25% of wages for the Employment Injury Scheme, while the Invalidity Pensions Scheme has a contribution rate of 1.0% shared equally between employers and employees.

The Armed Forces Fund (AFF), based on the Armed Forces Act of 1973, applies to servicemen who enlisted on or after August 1972 and who are not eligible for pensions. This implies that it covers only the rank and file. The scheme is similar to the EPF, but its total contribution rate is somewhat higher, 10% for employees and 15% for the employer.

Other provident funds exist for teachers and estate workers (these are being phased out) and for the national oil company, Petronas (which has the largest fund). If efforts to provide benefits supplementary to those of the government dominated provident and pension funds are successful, the importance of these funds may increase in the future. Among the organizations not included in the PPF, the Pilgrims Fund Board (PFB) or *Tabung Haji*, designed to enable Muslim Malaysians to go on a Haaj, is the most notable.

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\* Mukul G. Asher, National University of Singapore (mppasher@nus.edu.sg) prepared this profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

<sup>1</sup> In 1996, RM 2.52 equaled US\$ 1.00, and after the crisis in 1998, RM 3.97 equaled US\$ 1.00.

## **I. Background**

Malaysia is a middle-income country with a population of 21 million. It experienced high average real GDP growth of 5.2% during the 1990-97 period. With the economic crisis in South East Asia, in 1998, the country's GDP shrank by 7.5%. However, Malaysia experienced a quick recovery, with estimated real GDP growth of 5.4% in 1999.

The Malaysian economy has undergone significant structural transformation in recent years. Between 1980 and 1998 agriculture's share of GDP declined from 22% to 13%. Meanwhile, the share of services grew slightly from 40% to 43% and the share of industry increased from 38% to 44% (World Development Report Indicators, 1999). Much investment in manufacturing, particularly in electronics, is by multinational corporations and is heavily export oriented. The structural transformation has led to rapid increases in wage employment, mainly among females. Labor force participation in 1998 was 46.8% for females and 86.7% for males, giving a total participation rate of 64.3%. The total labor force of 8.56 million was distributed as follows: agriculture, mining and related, 17.1%; manufacturing, 27.1%; construction, 8.8%; non-governmental services, 36.9%; and, governmental services, 10.2% (Malaysia, 1997).

An analysis of Malaysia's demographics indicate the following trends:

- For the 1990-2030 period the annual population growth rate will still be less than the annual labor force growth rate, but a reversal is projected for the 2030-50 period.
- The total fertility rate, which was much higher than the replacement rate during the 1990-95 period, is likely to reach the replacement level during the 2025-30 period.
- The proportion of population above 60 is expected to increase from 5.7% of the total in 1990 to 14.5% by the year 2030, and the elderly dependency ratio should double.
- Given life expectancy at birth of 69.6 years for males and 74.5 years for females in 1997 (Malaysia, 1997), the proportion of old-old (i.e., those above age 75) is also expected to rise rapidly, particularly among females. Since females have lower labor force participation rates and average income than males, social security arrangements will need to accommodate their financing needs.

## **II. Analysis of the Pension System**

### **Assets**

At the end of 1998, total assets of all provident and pension funds (PPF) amounted to RM 172.8 billion (US\$ 45.5 billion at the current fixed exchange rate of US\$ 1.00 = RM 3.80). This was equivalent to 62.0% of GDP, 16% of total funds of the financial system, and 46%

of market capitalization.<sup>2</sup> The sizeable and growing assets of pension savings are concentrated almost wholly among the government funds, with the EPF being the most dominant among them (85.8% of total assets), followed by the PTF (6.4%) (see Annex 1). Although SOSCO is a social insurance-style scheme, it currently possesses a reserve fund.

## **Coverage**

Active contributors to the EPF account for about half of the total labor force – in 1997 EPF contributors numbered 4.31 million, out of 8.27 million members.<sup>3</sup> Since August 1, 1998 all foreign workers have been included in the EPF scheme.<sup>4</sup> As a result, authorities expect around 0.6 to 0.8 million additional contributors. However, foreign workers have shorter labor force attachment on average, making their participation more difficult to administer. This implies a significant increase in the administrative workload of the EPF, a factor that did not appear to receive adequate attention in the decision making process. As of the end of 1997, there were 296,299 employers registered with the EPF, of which 11,954 were in default. The number of EPF members affected by this situation is unknown. During the 1990s the peak default rate occurred in 1993 (20%, or 45,344 out of 223,142 employers).

The PTF's total membership is around 0.8 million. Eighteen thousand to 22,000 public employees retire every year, and there were around 325,000 retirees (equal to about one-third of civil service) in mid-1998. The average age of service for retirees is 27 years.

SOSCO covers all employers. At end-1996, 305,500 employers were registered, with a total membership of 7.6 million. The actual contributors however, were 217,524 and 4.1 million, respectively. Thus, as in the case of EPF, SOSCO effectively covers only around half of the labor force.

The AFF had 105,040 registered members at end-June 1997. Active contributors are likely to be less, but the relevant data are not available.

## **Contributions, Withdrawals and Member Balances**

Since the EPF's establishment, the mandatory contribution rates have more than doubled from 10% in 1974 to 23% in 1996 (Annex 2). This is much higher than the 10-15% normally found in similar schemes in Latin America and elsewhere (Queisser, 1998a) but lower than

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<sup>2</sup> One of the effects of the economic crisis in Malaysia was the significant increase in the importance of provident and pension funds in the nation's stock markets. A sharp increase for the stock market capitalization ratio in 1997/98 compared to 1996 was due to the sharp fall in market capitalization (International Financial Corporation, 1998). This in turn greatly heightens the urgency of undertaking reforms in corporate governance and financial and capital markets in order to achieve the goal of adequate retirement protection.

<sup>3</sup> The labor force in Malaysia was 8.61 million in 1997.

<sup>4</sup> Estimates of total foreign workers in Malaysia vary, with a high of two million.

the 40% rate (reduced to 30% in January 1999) in Singapore. There is no wage ceiling to which the rate applies, suggesting that possibilities for increasing the contribution rate or the wage base are limited.

Since November 1, 1994 total balances of each EPF member have been divided into three accounts. Sixty percent of the balances are in Account I, 30% in Account II, and 10% in Account III. Accounts II and III are for housing and medical expenses for critical illnesses, respectively, while Account I is for retirement. Members may withdraw one-third of the balances at age 50 and the rest at age 55 in lump sums. The EPF has explored the option of annuities, but appropriate annuity products at affordable prices have been difficult to obtain from the market.

Annex 3 provides data on EPF contributions, withdrawals and changes in member balances. Contributions have increased rapidly from 3.6% of GDP in 1990 to 5.2% of GDP in 1997. EPF contributions as a percent of GNS (Gross National Savings) have fluctuated between 11% and 14% during this period. Withdrawals have ranged from 30% to 40% of contributions.

The members' pre-retirement investment scheme, which began in 1996, attracted 42,193 members by the end of 1997 who withdrew RM 626.7 million (RM 14,853 per participating member). The quantitative importance of the scheme is very small, and so is the amount invested per member. Moreover, the scheme is only two years old, and rapid growth is unlikely soon. This is because the fund management industry in Malaysia is oligopolistic in nature. In conjunction with low amounts of investments per member, this could result in high transaction costs.

Early withdrawals include two additional types of benefits (for death and incapacitation). These amounted to RM 99.6 million in 1997, only 1.8% of the total. Both these benefits however, are unfunded (a departure from the EPF's philosophy), and have the potential to increase significantly. Moreover, these benefits duplicate those provided by the SOCSO. Therefore, they need to be reviewed and perhaps ended.

EPF members' ability to finance retirement is reflected in changes in the account balances. Until 1995, changes in these balances, which include the interest (called dividends in Malaysia) paid, exceeded contributions, but this pattern was reversed in 1996 and 1997 (see Annex 3 and 4). The EPF and Bank Negara have provided no explanation for this reversal. If however, the Bank Negara figures for members' balances reflect market rather than book values of EPF investments, then a reasonable deduction is that market value has become lower than book value, reducing retirement financing.<sup>5</sup>

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<sup>5</sup> The 1997 Annual report lends support to this interpretation. According to the Report, while in 1996 the market value of quoted shares and investments with portfolio managers was higher than the book value (RM 58.1 billion vs. RM 55.8 billion), in 1997 there was a sharp reversal. The book value of the quoted shares and

The PTF began with an initial contribution of RM 500 million, and each year the federal government sets aside 5% of its payroll for its financing. It also receives funds from the monthly contributions made by employers under the Statutory and Local Authorities Pensions Act 1980 (set at a rate of 17.5% of the salary of their pensionable officers), refunds of employer's contributions to the EPF and other approved funds established for the retired public officials. The fund's objective is to ultimately account for its pension liabilities through a combination of annual (employer) contributions and investment income.

In 1994 – the most recent year for which figures are available – total expenditure on pensions and gratuities was RM 2 billion, while the total number of pensioners, including those receiving survivors', disability, and dependants' pensions was 294,213. Because of the increase in government employment during the 1970's, liabilities are expected to grow rapidly, reaching around RM 9 billion by 2010 according to government estimates.

SOCISO's financial status is healthy, with contributions comfortably exceeding benefits so far. A low wage base and low contribution rates explain the small volume of contributions – only RM 757.5 million in 1996 (RM 185 per contributor). But the number of benefit recipients in 1996 was just 174,957, with average benefit of RM 1,807.2.

### **Governance Structure and Investment Policies and Performance**

Due to the composition of the publicly mandated funds' governing bodies and the means of selecting representatives, the funds remain under strong government influence, which holds implications for investment practice.

A board of 20 members (5 representatives each from the government, employers, and employees; 3 professional representatives; EPF's Executive Chairman and a Deputy Chairman) governs the EPF. Its investment panel is composed of a representative of the Governor of Bank Negara Malaysia, a representative from the Ministry of Finance, three professionals and a Chairman. The Minister of Finance appoints all members of the board and panel. In the case of the PTF, management is the responsibility of the Accountant General's Office under the Ministry of Finance. SOCISO is under the Ministry of Human

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investments in 1997 at RM 61.1 billion was RM 10.4 billion higher than the market value of RM 50.7 billion (EPF, 1998). However, on EPF's balance sheet (p. 77), only the loss in the market value of short term quoted securities was taken into account, while the loss of market value on long term quoted shares and investments were ignored. The Reports' reasoning is not clear, but it appears that only a permanent diminution in value of long term shares and investments is to be recognized. The Report states (p. 82) that as there is a government guarantee of the contribution plus 2.5% nominal interest on members balances (except for those contributions managed by outside Funds Management Institutions), it need not use market value for long term quoted shares and investments. Thus, the non-recognition of loss of market value because of the government guarantee has the potential to create an additional source of contingent liability for the government if the current crisis persists.

Resources. Its Board has 12 members (4 each from employers and insured persons; representative of Ministry of Finance; Chairman from the Ministry of Human Resources; Director-General of SOCSO; and, a Board Secretary). It also has an investment panel, with representation from employers, insured persons, professionals, Bank Negara and the Ministry of Finance.

The EPF Act of 1991, the Trustee Act of 1949, and policy guidelines and directives set by the Investment Panel and endorsed by the Ministry of Finance all govern the EPF's investment avenues (Ghaffar and Bushon, 1994). Under the EPF Act, responsibility for investment lies with the Management Investment Committee (MIC), which is independent of the EPF board (Tripathi, 1998).

Section 26(1) of the EPF Act of 1991 as amended (Act A914) has considerably broadened the scope of EPF investments. Thus, the guidelines have liberalized the definition of Malaysian Government Securities (MGS) to include loans guaranteed by the Government of Malaysia, BNM paper with maturity of not less than three years, any negotiable commercial instruments by state or local governments with not less than three years of maturity from the date of issuance, and bonds of Cagamas Berhad, the National Mortgage Corporation. Even with this broadening of the definition of the MGS, the EPF has had to seek special permission from the Finance Minister to waive the requirement under the 1991 EPF Act (Section 26) that the total amount invested in the MGS should at any given time not be less than 70% of its total investments.

Annex 5 provides a breakdown of EPF's stock of investments by type for the 1991-1997 period. These investments are valued at cost and do not reflect current market values. Since 1996, however, the decision on the dividend rate (i.e., interest) given to the members on their balances reportedly takes current market values into account, but the authorities have not specified exactly how.

The following observations are relevant to the analysis of investment performance:

- In the initial years EPF investment was almost exclusively in MGS. For example in 1960, MGS accounted for 97% of total EPF investment of RM 619.3 million. By late 1987 the share of MGS in total investments was 89.3%. Until recently, lending activity was almost solely confined to small loans guaranteed by the Government or by the banks. Investment in equities was basically for long-term with no trading.

Despite the liberalization in the definition of the MGS, its share of the EPF investment portfolio has been declining steadily during the 1990s, from 73.6% in 1991 to only 29.4% in 1997 (Annex 5). This has been due to a sharp reduction in federal government

budgetary deficits during this period,<sup>6</sup> in contrast to the situation of large deficits through the late 1980s. The trend in overall average federal budget deficit as a percentage of GDP is as follows: 1966-70, 4.8%; 1971-75, 7.7%; 1976-80, 8.9%; 1981-85, 13.3%; 1986-90, 6.9%, and 1991-95, 0.3%. However, due to the current economic crisis, the federal government's budgetary deficit is expected to increase again. This implies that the EPF (and other similar institutions) will once again be able to purchase MGS in significant quantities.

- The share of debentures and loans in total investments more than doubled between 1991 (11.0%) and 1997 (26.2%). Significant proportions of these investments have gone to finance projects such as the independent power plants, Light Rail Mass Transit, and the New Kuala Lumpur International Airport. EPF also has a 20% equity share, valued at RM 124.2 million in the Light Rail Mass Transit. Similarly, the EPF has a 63% equity (valued at RM 689 million in 1997) in the Malaysia Building Society Berhad (MBSB).
- Since 1991, the share of equities in the EPF's investment portfolio has increased by more than nine fold, from 2.1% in 1991 to 19.0% in 1997.
- The EPF's direct exposure to property investment is insignificant. However, its indirect exposure – through MBSB and other subsidiaries and associated companies, the stock market, and clients with investments in the property market – is considerable.

The EPF undertakes the investment function in-house, with only a small proportion of its funds under outside management (Koo, 1997). In contrast, SOCSO (with assets of RM 6.0 billion at end-1997) uses nine external fund managers to invest a somewhat greater proportion of its assets (Koo, 1997). A comparison of the performance of the outside (external) fund managers with that of the in-house investments is not available.

The EPF has been traditionally mandated to invest only within Malaysia. Recently, however, it has secured permission to invest offshore and has taken concrete actions to select external fund managers (Koo, 1997). The usual argument for the practice of not confining all provident (or pension) fund investments within a country is that it permits greater risk diversification. But such diversification requires a stringent regulatory structure, transparency and public accountability regarding the investment portfolio and performance. Selection of external fund managers by itself is not sufficient to overcome principal-agent problems inherent in provident fund investments. Moreover, globalization of financial and

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<sup>6</sup> Some of the reduction in budgetary deficit is more apparent than real as a significant proportion of infrastructure expenditure has been privatized in recent years. But this has occurred in a state-directed manner with the government providing implicit or explicit guarantees. Unpublished estimates suggest that quasi-fiscal operations are likely to give rise to potential contingent liabilities of between 8% to 10% of GDP. This does not include contingent liabilities from pension benefits promised to government employees.

capital markets implies that major stock markets move in tandem, reducing (but certainly not eliminating) the benefits from geographic-risk diversification.

There are indications that the authorities are using public funds to attain a variety of policy objectives. As a result, administrative or non-market avenues are increasingly used to channel EPF savings into investment. In conjunction with the state management of provident funds, a monocentric power structure and lack of tradition of open public debate and of diversity in media have adversely affected the efficiency with which savings are translated into investment. This also indicates how political risk may arise in the national provident fund method, reflecting a trade-off between the way certain public policy objectives are pursued and members' interest in securing appropriate rates of return.

Several examples illustrate the influence of policy objectives on investment actions:

- The EPF has been participating in government initiated and directed privatization and infrastructure projects, mainly through its investments in debentures and loans (Bank Negara, 1997). While the EPF may be able to shift the risk of such investments to the government, provided it receives appropriate guarantees, the ultimate risk remains with society as a whole. As a general rule, investments not justified by social cost-benefit analysis criteria create inefficiencies in resource allocation, and selection of projects and the manner of their privatization are crucial.
- The EPF Act was amended to create a more active role for the EPF in promoting home ownership among lower and middle-income groups as of November 1, 1996. Besides facilitating demand through permitting individuals to use their EPF balances to purchase housing, the amendments also allow the EPF to participate on the supply side by providing financing for housing construction through its subsidiary, MBSB, which presents some risk exposure.
- During the initial stages of the economic crisis in 1997, the government set up a RM 60 billion fund to reverse sharp declines in stock prices on the Kuala Lumpur Stock Exchange (KLSE). Half of the fund was to be financed by the EPF, other pension funds and Khazanah Nasional, the Malaysian government's investment arm, and become effective on September 4, 1997. In late September 1997 the KLSE index was around 780. On September 16, 1998, it stood at 394, and it recovered somewhat to around 600 in February 1999. The other half of the fund was to be raised through the issuance of government bonds. However, the plan was quietly dropped and never implemented as originally envisaged. Nevertheless, whether government investment was used to support selected stocks is not clear. The Malaysian state-controlled fund Permodalan Nasional Berhad (PNB), with funds totaling RM 30 billion, has invested in 300 domestic companies and acquired shares in companies with potential to help the Malaysian economy recover (The Straits Times, Singapore, April 20, 1998).



- There are indications that the government is using the state funds to assist in re-capitalization of distressed banks (Lopez, 1998) and to assist certain business groups considered nationally important. Since October 1997 the EPF has lent RM 2 billion to the Treasury's investment arm Khazana Nasional, RM 1 billion to the new international airport, and RM 0.71 billion to debt-laden steel maker Perwaja Trengganu (Tripathi, 1998). The EPF has reportedly taken an equity interest in one of the troubled local banks, although the EPF has denied this (The Business Times, Singapore, April 20, 1998). It may also purchase a substantial stake in a debt-laden but well-connected unit of United Engineers of Malaysia for RM 1.5 billion (Toh, 1998).
- Malaysia's imposition of currency and stock-trading curbs has essentially meant that its currency (Ringgit) can not be traded internationally. Conversion of Ringgit into Foreign exchange by individuals and firms based in Malaysia requires permission of the authorities. These measures have meant that Malaysia is unable to borrow abroad on conditions it considers affordable. Thus, it has decided to fund its economic recovery plans, estimated to cost RM 60 billion (US\$ 15.8 billion), domestically. It appears that the domestic provident and pension funds, such as the EPF and the PTF, along with cash-rich and profitable state firms such as the national oil company, Petronas, are to be used as major funding sources.
- At end-1997, the total number of depositors with the Pilgrims Fund Board (PFB) was 3.2 million and total resources mobilized were RM 6.1 billion, of which 48.7% were in corporate securities (more than half of which were in unquoted shares); 33% in short term assets; and the rest in other assets (Bank Negara, 1997). In August 1998 the PFB was reported to be considering buying fixed assets (a significant departure from its policy of investing in financial assets) such as factories of DRB-Hicom, a government connected company with total borrowings of RM 2,480 million (Asian Wall Street Journal, Aug. 28-29, 1998). The newspaper account quotes analysts as expressing skepticism that the main motivation behind this investment was commercial.

Thus, in spite of their legal status, the pension fund bodies in Malaysia do not enjoy functional autonomy.

Annex 6 provides data concerning nominal and real rate of return (called dividend) to the EPF members for the period 1961 to 1997. During that period there were only three years (1973, 1974 and 1981), all related to energy price shocks or their aftermath, when the real rate of return (nominal rate less the inflation rate as measured by the Consumer Price Index, CPI) was negative. A simple annual average of the nominal dividend rate for the period is 6.90% and of the real rate is 3.44%. For the 1987-1997 period the annual real rate of return is higher at 4.60%. Provided the market basket and the price samples are an accurate

reflection of consumption patterns of the elderly, the real rate of return may be regarded as satisfactory.

On the other hand, Valdes-Prieto (1998) has argued that the EPF's returns are unsatisfactory when compared to the alternatives. He notes that the real rate of return credited to members over the 1971-91 period was 2.74% per annum. However, the real rate of return obtainable from bank deposits plus half of the spread between bank loans and bank deposits was 4.26% per year, and equities earned an annual real return of 5.61%. Thus, the implicit tax was at least 1.52 percentage points per year in real terms. Cumulatively, this would substantially reduce the available funds for retirement.

The shift in investment patterns away from the MGS has increased the need for enhancing the EPF investment expertise. This is because the MGS fetched risk-free high interest rates for the EPF. To the extent that the MGS interest rate is higher than the economic rate of return earned by the government, an implicit subsidy to EPF members accrues. However, as taxpayers, members may still bear a burden if the state-directed projects require implicit or explicit subsidy.

### **Tax Treatment**

In Malaysia both the employer and employee contributions, income accruing from investment of accumulated funds (or gains on pre-retirement withdrawals), and withdrawals at the time of retirement are all exempt from personal income tax. However, an individual may claim a maximum of RM 5,000 for insurance premium and contribution to approved pension funds. There is no salary ceiling for the EPF contributions. Thus, assuming no life insurance, an individual cannot deduct the EPF contributions on annual wages above RM 45,455. The individual may deduct up to a maximum of RM 2,000 for premium paid on education and medical insurance policies. In 1995 (the latest year for which the data has been made available), the deduction for life insurance premium and provident fund contributions was RM 2.34 billion, equivalent to 5.4% of assessed income.

These tax arrangements are regressive. The individual income tax rate in Malaysia ranges from 2% to 30% with nine income brackets. This implies that tax saving from provident fund deductions increases with wage income. In 1995 1.46 million individuals, equivalent to 17.9% of the labor force, paid income tax. Thus, for the vast majority of the labor force, EPF tax exemption is of no material consequence. As a result, on both counts, EPF tax arrangements are regressive.

For employers, the maximum deduction permitted in Malaysia for the EPF and other approved funds is 19%. As the EPF contribution rate for employers is 12%, this allows for tax exempt status for an additional 7.0% of wages for the employers to provide

supplementary benefits. Thus, there is some tax incentive for private pension plans. Government pensions are taxable if taken at age 50 but not at age 55.

### **III. Reform Issues and Options**

The PPF component of the contractual savings sector is the primary instrument for providing social security in Malaysia. While the social insurance principle is present on a very limited scale through SOCSO, and while PAYG-type arrangements exist for government pensionable employees, the primary reliance is on a mandatory savings pillar to provide social security. Thus, in the World Bank's multi-pillar social security framework (The World Bank, 1994), Malaysia relies primarily on the second pillar. The first pillar is practically non-existent, limiting government's ability to smoothen inter-temporal volatility, while the role of third pillar is very limited due to high mandatory savings contribution rates and the lack of specific tax incentives for voluntary savings and pension plans.

The role of informal social security through the family and community remains significant. However, urbanization and industrialization, reduced fertility rates, and population aging are rapidly eroding these arrangements. Moreover, the average aged person is now better educated and has obtained more lifetime exposure to the labor force. This type of person will likely bring more individualistic attitudes towards old age and may prefer to maintain independence rather than live with children.

In this context, the reform agenda for the various provident and pension funds includes the following main issues:

- Benefit levels. The EPF's 23% contribution rate, which is much higher than the international norm of 10% to 15%, is unable to provide an adequate replacement rate to members. While no official estimates are available, the rate is unlikely to exceed 20% to 25% of the final salary, far short of the two-thirds recommended by pension experts. Thus, in 1996, as compared to the per capita GNP of RM 11,118, the average amounts withdrawn at age 50 (one-third of accumulated balances can be withdrawn at that age) and at age 55 were RM 11,132 and RM 9,501 respectively. These amounts represent the mean, and the median amounts are likely to be lower. This reflects both relatively low wages and a highly unequal wage structure. At end-1996 63% of the active contributors had wages below RM 1,000 per month (accounting for 25.8% of the balances) while only 2.8% had wages above RM 5,000 per month (accounting for 22.1% of the total balances). It is possible that these figures somewhat overstate the wage inequality as there may be a tendency by some firms to under-report wages subject to the EPF contributions. Considering the low wage rates, an appropriate replacement rate in the case of Malaysia is likely to be even higher than two-thirds.

- Benefits planning. The benefits planning function involves formulation of various schemes for members (e.g., for housing, investment, post-retirement annuity, health care financing, etc.). It also requires analyzing the implications of alternative ways to expand coverage. The EPF also permits pre-retirement withdrawals for housing. The terms and conditions of the permitted withdrawals for housing need to be carefully examined and their impact assessed. Health care is another area for which the EPF allows withdrawals. The feasibility of introducing a health insurance scheme for major illnesses could be examined, based on appropriate actuarial calculations. The health insurance funds need to be managed separately, and their performance could be used as one of the inputs in evaluating the investment performance of the EPF as a whole. Rationalization of EPF's health schemes with those of SOCSO should be undertaken. It appears that the EPF is providing death and incapacitation benefits on an unfounded liability basis. These benefits also duplicate those of SOCSO, and their rationalization would be beneficial.
- Risk protection. In Malaysia there is no requirement that accumulated balances be converted into an annuity at the time of retirement, which has a number of disadvantages. First, it negates the main rationale of mandatory savings, based on the idea that individuals are myopic and will not save enough for old age. Second, there are indications that many EPF members are spending their retirement withdrawals too quickly and unproductively. As a result, there may be political pressures for the government to increase social expenditure on these members. This implies that the higher fiscal burden would need to be borne by the taxpayers in general, including those EPF members who have been prudent in their use of accumulated balances. In turn, this partially negates one of the advantages of the mandatory savings scheme, i.e. to minimize the recourse to the tax-transfer process in retirement provision. Third, the lump-sum withdrawal severely limits options for covering inflation and longevity risks. This is because it results in loss of efficiency and cost saving from risk pooling. As a result, individuals purchasing annuities must bear the cost of this loss. High costs in turn exacerbate the adverse selection problem and lead to market failure. As a result, the market cannot provide adequate protection.
- Financial market development. Also, lack of development of annuity products means that there is less pressure on the Malaysian government to issue inflation-indexed bonds. This adversely affects the development of bond markets and creation of a sovereign yield curve reflecting varied maturity periods. Without such a curve, a benchmark for the pricing of other bonds cannot be established. Also, without inflation-indexed bonds, insurance companies and others are further hampered from providing annuities at reasonable cost. Thus, in spite of the contractual savings sector being fairly large in relation to GDP, its contribution to the financial sector and capital markets has been rather limited. The main point emerging from this discussion is that efficient but prudentially regulated and transparent financial and capital markets, with sufficient depth and variety of products, are critical if the potential of the contractual savings sector,

including its primary role in social security provision, is to be realized. It is in this sense that the reform of the financial and capital markets, corporate governance, and provision of pensions are inter-linked.

- Investment performance. Several measures may enable the EPF (and other funds) to improve investment performance:

The pension schemes need to substantially improve their investment management by acquiring necessary staff, effectively using outside advisors, and contracting out greater proportions of assets. Incentive structures need to be introduced which underlie the fiduciary responsibilities of provident and pension fund managers. In negotiating with outside fund managers, the EPF needs to keep in mind the concentrated nature of the fund management industry and carefully devise asset allocation guidelines and other regulations. Too restrictive guidelines, along with the emphasis on comparing gross rates of return, may provide incentives to fund managers to behave in a herd-like manner, negating some of the benefits of diversification and contracting out. One possibility is to classify fund managers in risk categories according to allocation between equities, fixed income, and others and compare those within each category. Similarly, schemes permitting individual members to invest in unit trusts could also incorporate this feature. In evaluating the proposals from the fund managers, after-fee rates of return criteria should be applied.

Asset allocation rules should be reviewed to allow some allocation overseas, since currently all accumulated balances must be invested domestically. This could help diversify country-risk and could also permit insurance companies to offer annuity products at more affordable prices.

The size of accumulated pension assets in relation to stock market assets is large, while the in-house investment management expertise of EPF, SOCSO and others is inadequate for this volume. Additionally, the fund management industry in Malaysia is concentrated and not well developed. Therefore, there is a strong case for the EPF and others to consider passive management of at least a part of the funds, which would help mitigate political risk. Such passive management can be based on a combination of domestic indexes for a portion of the funds and on global indexes for the rest. Of course, this could only be undertaken once the current capital control regime is normalized, which would require concomitant changes in stock markets, bond markets and others.

The EPF should reconsider its scheme of permitting investments by individual members in unit-trusts. At the minimum, it should provide information about the associated fees and charges (say as a proportion of contributions). As noted, classification of unit-trusts by risk categories can also be publicized. This may be one way to accommodate different individual risk preferences.

The authorities could consider allowing very large firms providing at least the same benefits (in terms of contribution rates) to opt out of the EPF scheme on a case by case basis. Similarly, those individuals who already have accumulated certain balances with the EPF or other provident funds (RM 300,000 in 1998 prices) could be given the option of exemption from further contributions. These opting out provisions are designed to encourage more private sector management of funds and thereby provide information about investment performance of alternative arrangements. However, tax treatment would need to be equivalent for the EPF and other pensions. Group annuity policies and other pension fund products could be explored.

The changes to improve the investment performance of the funds should be accompanied by better information analysis and dissemination. Actuarial Reviews of the provident and pension funds should be made mandatory every three to five years, and the results should be made publicly available. For the EPF and other provident funds, not only contributions and liability profiles need to be developed (to better match assets and liabilities), but the replacements rates and net annuity amounts (if accumulated balances are to be converted into annuity, taking into account administration and other fees) should also be calculated and publicized. As soon as feasible, all investments should be reported on a market basis by all provident and pension funds. This requirement should be made mandatory for new funds from the beginning. The EPF, SOCSO, Petronas (oil company) Fund and others should encourage companies to improve their accounting and disclosure practices to bring them in line with international norms.

EPF and other provident and pension funds should encourage development of indigenous expertise in the area of social security through funding research projects, scholarships, conferences and specialized workshops. The message needs to be conveyed that corresponding to assets of the EPF and others are liabilities, i.e. promised benefits. Assets and liabilities need to be properly matched at all times.

- Housekeeping function. This area of activity involves: (i) establishing a complete “registry” of enterprises and individuals; (ii) maintaining account records; (iii) administering pre-retirement withdrawal schemes; (iv) paying benefits; and administering penalties to those defaulting from payment obligations or to those not adhering to the conditions of pre-retirement withdrawals. Inclusion of foreign workers since August 1998 in the EPF scheme will add to the complexity of these tasks as turnover among the foreign workers and their length of stay in the country exhibit a very different pattern than the native population. Also, the number of such schemes being administered by the EPF has been growing.

A merger of SOCSO and the EPF has been under consideration for quite some time and could increase the efficiency of housekeeping. The reason for lack of any concrete steps

in this direction appears to be organizational and political rather than technical. Therefore, such a merger should receive priority.

The EPF, as the largest organization, should increase its use of Internet to not only provide better services, and become closer to its members, but also as a deliberate strategy to economize on costs. It has the resources and the potential to be a leader in this area. It can use the Internet to inform and to educate the members about its schemes.

The EPF and SOCSO should adopt a bench marking strategy to increase compliance. This would involve working through unions and community based organizations to increase awareness of the importance of retirement saving. The current penalty rules and practices could also be studied with a view to making them more effective.

- System design. In considering the entire retirement protection system, there are at least two other important issues to consider: (i) the development of fiscally more sustainable methods of meeting pension liabilities of the government employees and (ii) encouraging the development of occupational pension plans and voluntary savings plans to enable accommodation of individuals with differing preferences, and, similarly, creating more options even within the mandatory savings schemes such as the EPF.

The Malaysian policymakers and social security institutions face major challenges in providing an adequate and sustainable level of income security to the elderly. Investment, benefits planning and housekeeping all need reform. There is also an urgent need to explore regulation and design to enable the social security institutions to give more emphasis to their fiduciary responsibilities. The reforms should recognize the essential linkage between financial and capital market reforms, corporate governance and pension provision. The emphasis should be on making substantial improvements in the mandatory savings pillar, particularly as embodied in the EPF and in addressing the contingent pension liabilities of the government employees.

**Annex 1. Assets of Provident and Pension Funds, 1995-97**

<b>All Funds</b>	<b>1995</b>	<b>1996</b>	<b>1997<sup>a</sup></b>
Total (RM billion)	114.2	135.7	154.3
As a % of GDP	52.2	54.3	55.7
As % of financial system funds	15.3	14.8	13.8
As % of market capitalization	20.2	17.5	42.3
<b>Major components</b> RM billion; (%)			
EPF	98.8 (86.5)	117.3 (86.4)	132.4 (85.8)
PTF	6.0 (5.3)	7.6 (5.6)	9.9 (6.4)
SOCSSO	4.5 (3.9)	5.2 (3.8)	6.0 (3.9)
AFF	3.5 (3.1)	4.1 (3.0)	4.5 (2.9)
Others	1.4 (1.2)	1.4 (1.0)	1.4 (0.9)

EPF: Employees Provident Fund; PTF: Pensions Trust Fund for Government Employees; SOCSSO: Social Security Organization; AFF: Armed Forces Fund; "Others" includes Petronas Pension Fund.

Notes: <sup>a</sup> 1997 data are preliminary.

Sources: Bank Negara Malaysia (1998): *Annual Report 1997*, (1997 breakdown of total assets supplied by Bank Negara); Market Capitalization from International Financial Corporation (1998): *Emerging Stock Markets Factbook 1998*, Washington D.C., p.185.



**Annex 2. EPF Contribution Rates (%)<sup>a</sup>**

Period	Employee	Employer	Total (net of Employer's share)	Total (inclusive of Employer's share)
1952-74	5	5	10	9.52
July 1975-79	6	7	13	12.15
Dec. 1980-92	9	11	20	18.02
1993-95	10	12	22	19.64
1996-	11	12 <sup>b</sup>	23	20.54

Notes: <sup>a</sup> There is no wage ceiling to which these rates apply. <sup>b</sup> Employer's rate for foreign workers (covered since August 1998) is a flat rate of RM 5 per month. The employee rate remains at 11%.

Source: EPF

**Annex 3. EPF: Contributions, Withdrawals, Changes in Member Balances, 1990-1997**

Contributions				Withdrawals		Δ Members' Balances	
Year	Amount (RM million)	% GDP	% GNS	Amount (RM million)	% contributions	Amount (RM million)	% GDP
1990	4,139	3.6	11.0	1,727	41.7	5,665	4.9
1991	4,866	3.7	12.9	1,995	41.0	6,659	5.0
1992	5,556	3.7	12.0	1,728	31.1	8,869	6.0
1993	7,418	4.5	13.6	2,169	29.2	10,200	6.9
1994	8,800	4.6	14.2	2,526	28.7	12,080	6.3
1995	10,324	4.7	14.1	3,026	29.3	13,553	6.2
1996	12,383	5.0	13.5	3,873	31.3	8,510 <sup>a</sup>	3.4
1997	14,515	5.2	13.8	5,636	38.8	8,879 <sup>a</sup>	3.2

GDP - Gross Domestic Product, GNS - Gross National Savings, <sup>a</sup> Contributions exceed changes in members' balances

Source: Bank Negara Malaysia, Monthly Statistical Bulletin, July 1998.

**Annex 4. GDP, GNS, EPF Members' Balances, Book Value of Investments, 1990-97 (RM, m)**

Year	GDP	GNS	Members' Balances	Book Value of Investments
1990	115,701	33,672	46,179	45,642
1991	132,381	37,662	52,838	52,036
1992	148,537	46,482	61,707	60,883
1993	165,206	54,534	71,907	71,263
1994	190,274	62,133	83,987	82,690
1995	218,726	73,324	97,540	95,635
1996	249,784	91,517	106,050 <sup>a</sup>	112,820
1997	277,033	105,282	114,929 <sup>a</sup>	129,576
1998*	NA	NA	120,284 <sup>a</sup>	137,054

\* up to June, <sup>a</sup> Since 1995, book value of investments has significantly exceeded members' balances. The reason for this is not clear. A possible explanation may be that members' balances reflect market rather than the book value of portfolio. If this is indeed the case, EPF unrealized losses would be RM 16.77 billion as of end-June 1998. The corresponding figures of the EPF are in close conformity with the Bank Negara figures given above until 1995. But for 1996, the EPF's figures for members' balances are RM 114.2 billion and for book value of investments RM 115.2 billion, both substantially higher than the Bank Negara figures. As noted, the discrepancy has not been explained by the authorities.

Source: Bank Negara, Malaysia, Monthly Statistical Bulletin, July 1998.

**Annex 5. EPF Stock of Investments by Type, 1991-1997 (RM millions)**

Type of Investments	1991		1992		1993		1994		1995		1996		1997	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
Total - All investments (at cost price)	51,997	100.0	60,863	100.0	71,529	100.0	83,309	100.0	96,600	100.0	115,217	100.0	129,379	100.0
Malaysian Government Securities	38,276	73.6	39,637	65.1	39,265	54.9	40,271	48.3	39,150	40.5	38,754	33.6	38,068	29.5
Debentures and Loans <sup>a</sup>	5,695	11.0	7,553	12.4	6,248	12.1	12,080	14.5	17,132	17.7	23,992	20.8	33,837	26.2
Equities <sup>b</sup>	1,102	2.1	1,607	2.6	2,964	4.1	8,817	10.6	11,487	11.9	17,930	15.6	24,574	19.0
Money Market, including fixed and short-term deposits with banks	6,923	13.3	12,065	19.8	20,390	28.5	21,805	26.2	28,491	29.5	34,170	29.7	32,421	25.1
Others <sup>c</sup>	1.60	-	1.60	-	285	0.4	336	0.4	340	0.4	371	0.3	480	0.4

Notes: <sup>a</sup> Bank Negara's 1996 Annual Report (Table 3.18, p. 113) puts loans and debentures investments at end-1996 at MR\$15,510 million and corporate securities (i.e., equities) at RM 26,698 million. The share of equities is thus much greater according to Bank Negara. If correct, stock market decline would imply greater unrealized losses by the EPF. <sup>b</sup> Given the decline of 52% in Malaysian stock market capitalization value in local currency between the beginning of 1997 and December 30, 1997, the market value is likely to be lower. <sup>c</sup> Mainly property investments.

Source: Calculated from the data supplied by the EPF.

**Annex 6. Nominal and Real Rates of Dividends on EPF Balances, 1961-1997**

<b>Year</b>	<b>Nominal Dividend Rate</b>	<b>Inflation Rate (CPI)</b>	<b>Real Rate of Dividend*</b>
	(%)	(%)	(%)
1961	4.00	-0.20	4.22
1962	4.00	0.10	3.89
1963	5.00	3.10	1.86
1964	5.25	-0.40	5.68
1965	5.50	0.10	5.61
1966	5.50	1.40	4.13
1967	5.50	4.20	1.34
1968	5.75	-0.20	5.95
1969	5.75	-0.40	6.16
1970	5.75	1.90	3.84
1971	5.80	1.60	4.20
1972	5.85	3.20	2.65
1973	5.85	10.50	-4.65
1974	6.60	17.40	-10.80
1975	6.60	4.50	2.10
1976	7.00	2.60	4.40
1977	7.00	4.70	2.30
1978	7.00	4.90	2.10
1979	7.25	3.60	3.65
1980	8.00	6.70	1.30
1981	8.00	9.70	-1.70
1982	8.00	5.70	2.30
1983	8.50	3.70	4.80
1984	8.50	3.60	4.90
1985	8.50	0.40	8.10
1986	8.50	0.60	7.90
1987	8.50	0.80	7.70
1988	8.00	2.50	5.50
1989	8.00	2.80	5.20
1990	8.00	3.10	4.90
1991	8.00	4.40	3.60
1992	8.00	4.70	3.30
1993	8.00	3.60	4.40
1994	8.00	3.70	4.30
1995	7.50	3.40	4.10
1996	7.70	3.50	4.20
1997	6.70	2.70	5.00
Simple average (1961-1997)	6.90	3.46	3.44

*Note:* \* Defined as the difference between the nominal dividend rate and the inflation rate as measured by the "Consumer Price Index" (CPI).

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## Mongolia\*

### Overview of Formal Old-Age Support

Like most countries of the former Soviet Union, Mongolia inherited a pay-as-you-go (PAYGO) public pension system providing universal coverage and generous benefits for privileged groups. The system was viable only within the context of a centrally planned economy with artificially full employment, a highly compressed wage structure, and no informal sector. The collapse of the wage base during the early 1990's, combined with the emergence of the informal sector and the high cost of benefits for current retirees, rapidly pushed the system into deep insolvency. Although the old system was reformed in 1995, it remains heavily dependent upon transfers from the general budget equal to approximately 30% of the cost of benefits.

The current pension system, introduced in 1995, uses a final-years career average, defined benefit formula that is overly generous relative to what can be afforded – 45% of the highest five years of wages plus 1.5% of additional credit for each year of service over 20 years. Coverage is voluntary for herders and the self-employed, but is otherwise mandatory. Career military and the police are covered by a separate scheme. The contribution rate is 19% (of a total social levy of 29%-30%, depending upon one's employment status).<sup>1</sup> Employers pay 13.5%; employees pay 5.5%. Women may currently retire at 55, or 50 if they have at least four children. The retirement age for men is 60.

The 1995 reform improved the existing system and eliminated many categories of special privileges, but it failed to restore long term financial sustainability and adequately address several structural weaknesses, including irrational or inefficient labor force incentives, inequities in benefit provisions, and the absence of a rational indexation policy. In addition, the reform did nothing to further develop the domestic capital markets, which the coalition government recognizes is necessary to enhance economic growth in the medium to long term.

Recognizing these problems, the government passed legislation in early June 1999 to (i) replace the current benefit formula with unfunded individual accounts (also referred to as notional defined contribution accounts) and (ii) gradually introduce funding into the pension system, beginning in 2005 (when 3% of the 19% total contribution rate will be invested) and ending in 2020 (by when 7.5% of the total contribution rate will be invested). The legislation stipulates that the pace of development in the capital markets and the government's fiscal capacity to fund transition costs (through savings accruing within the pension system, rather than increased borrowing) will determine the speed of reaching this target. Implementation of this reform is currently underway, with the introduction of unfunded accounts in January 2000.<sup>2</sup>

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\* Christopher Bender, Professional Education Ventures (benderc@aol.com), prepared this country profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

<sup>1</sup> The remaining components of the total social levy include health insurance (6%), unemployment insurance (1%), worker's compensation insurance (1% of 2%), and benefit insurance (2%).

<sup>2</sup> The author of this report supported the Government of Mongolia in developing the reform and is currently assisting the Social Insurance organization in its implementation as the manager of a project funded by the United States Agency for International Development (USAID).

## **I. Background**

Seventy years of Soviet influence left Mongolia ill prepared when the Soviet Union collapsed in the early 1990s. Virtually overnight, gross domestic product shrank by a third when the Soviet Union ended direct and indirect transfers and began demanding hard currency – rather than wool and mutton – in exchange for petrol and machinery. With a small (and largely obsolete) industrial base, little technical know-how, modest natural resources, geographic isolation, economic policy molded by years of central planning, and a social order rooted in centuries-old nomadic traditions, Mongolia found itself in crisis.

The economy continued to contract during the early 1990s. Many Mongolians returned to a traditional nomadic herding way of life, and livestock populations increased dramatically with the legalization of private ownership of animals. For each Mongolian, there are approximately six sheep, four goats, one and half cows, and one horse. The agricultural sector (including livestock) makes up approximately 33% GDP, up from 15% in 1989. Outside this sector, however, economic activity ground to a virtual halt. Production dropped off sharply for lack of hard currency to buy fuel or spare parts for aging Russian-made machinery. Without the benefit of captive markets, Mongolian-made products found fewer buyers, and most enterprises capable of generating much-needed hard currency (such as the national airline, the telephone company, the railways, the copper and gold mines, and those involved in the cashmere industry) were kept in public hands, effectively precluding improvements in quality or productivity.

In 1996, after four years of economic contraction and two years of marginally positive growth (driven almost entirely by increases in the world price of copper), a coalition of reformist parties committed to stemming further economic contraction by strengthening market-based reforms replaced the governing former communist party. Included among the coalition's reforms are measures to impose fiscal and monetary discipline; shrink the size of the public sector; accelerate the pace of privatization of state-owned or controlled enterprises; restructure the banking, energy, and agricultural sectors; eliminate price controls; and reduce barriers to trade and foreign investment.

By and large, the reforms appear to have taken root. By 1998 real GDP had risen approximately 10% over 1995 levels, and inflation, which had peaked at 325% in 1992, had fallen to a modest 6%. In June 1999, the IMF again endorsed an Enhanced Structural Adjustment Facility agreement that had been suspended. Despite the improved prognosis, however, Mongolia is likely to remain (i) very poor in the short to medium term,<sup>3</sup> (ii)

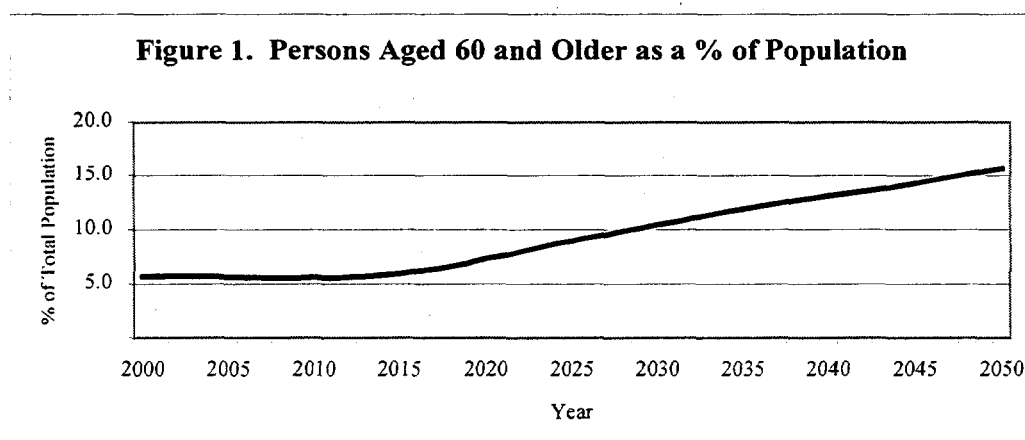
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<sup>3</sup> For example, Mongolia's 1998 GDP per capita was approximately SUS 365, among the lowest in the region along with those of North Korea and the Lao PDR.



dependent upon commodities to provide it with much-needed foreign currency, and (iii) vulnerable to price fluctuations within global markets for these commodities.<sup>4</sup>

Mongolia has one of the youngest populations in East Asia. Forty-seven percent of the population are currently under the age of 20, and only 7% of the population are older than the retirement age. These statistics mask underlying and problematic demographic trends. The collapse of the Mongolian economy in the early 1990s and the elimination of cash subsidies and other incentives for child bearing (rooted in decades of pro-natalist social policies) have resulted in sharp reductions in fertility rates. The total fertility rate fell from 4.6 in 1989 to 2.7 by 1995 and 2.3 by 1998. Over the ten-year period ending 1998, this represents a decline of 50%. Absent the reintroduction of pro-natalist policies – which seems unlikely for social, as well as financial reasons – fertility rates are likely to remain low and drive fundamental change in the structure of the population over the long term. Holding life expectancies constant, the projected impact of changes in fertility rates on the population of old-age persons is large (Figure 1).<sup>5</sup>



Data on trends in life expectancy are generally unavailable or unreliable, but life expectancies in Mongolia are very low when compared to other countries of the region. Consistent with patterns elsewhere within the former Soviet Union, life expectancies have fallen slightly over the past decade, pacing a decline in the quality and availability of medical care. However, life expectancies in Mongolia are substantially lower than in many countries in the region and, thus, over the long term, are likely to rise.

<sup>4</sup> A third of GDP comes from agriculture and livestock. Another third of GDP – and about half the country's hard currency – comes from mining (coal, copper, molybdenum, gold, fluorspar, uranium, tungsten and zinc). Other industries include tourism and the processing of animal products such as raw cashmere and leather into finished goods.

<sup>5</sup> An actuary funded by USAID made all demographic and cash flow projections cited in this report using the Pension Reform Options Simulation Toolkit (PROST model) developed by the World Bank.

Official figures suggest that unemployment in Mongolia is modest and that rates of unemployment have been falling (from 8.7% in 1994 to 5.8% in 1998). While the latter may be true (since 1994, economic conditions appear to have improved), actual levels of unemployment are undoubtedly substantially higher.<sup>6</sup> Some evidence for this exists even within the official estimates, which show a fall in labor force participation rates across the same period (from 73% to 68%) in the presence of a stable population of economically active persons. Informal estimates suggest that actual unemployment (after allowing for persons employed outside the formal sector) ranges from 17% to 23%.

Even if better unemployment data were available, they would fail to illuminate three aspects of the Mongolian labor market that directly affect the public pension system:

Informal sector: Since the collapse of the Soviet Union, the informal sector, which in 1989 was virtually non-existent, has grown substantially. Estimates suggest that the informal sector now represents approximately 30% of GDP, a percentage that is likely to grow in the short to medium term.

Herding population: A large percentage of the population has returned to a traditional nomadic herding way of life. Approximately 40% of all working persons are currently herders. Experience in Mongolia, where participation in the public pension system is currently optional for herders and the self employed, as well as in other parts of the developing world, demonstrates the difficulty in collecting pension contributions from this segment of the population (which is also comparatively poor).

Labor market absorption: A very large percentage of the Mongolian population is poised to enter the work force. The cohorts currently between the ages of 10 and 19 and 10 and 24 constitute approximately 24% and 34% of the total population, respectively. The entry of these cohorts into the labor market will more than likely result in (i) higher levels of unemployment, (ii) an increase in the size of the informal sector, and (iii) dampened productivity growth in the short to medium term.

Mongolia's population is highly literate,<sup>7</sup> but virtually everyone over the age of 35 entered the workforce during the era of central planning. The accumulation of human capital suited to a market economy is only just beginning.

Mongolia has a total population of 2.4 million, one quarter of which live in Ulaanbaatar, the capital city. The remainder are spread across a land area of 1.5 million square kilometers (about three times the size of France). Mongolia is one of the least densely population countries in the world. Low population density, long distances between population centers,

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<sup>6</sup> Official statistics for unemployment include only those persons registered with an unemployment office.

<sup>7</sup> Estimates for literacy range from 80% to 90% of the total population.

the poor condition (or complete absence) of roads, the lack of reliable power in most outlying areas, and the lack of money to modernize operations within the social insurance organization greatly increase the difficulties of administering the public pension system.

Despite strong traditions of familial support (particularly within the herding population), the fact that a large percentage of economic activity is conducted outside the monetized economy (and is therefore not included in official statistics), and the existence of savings in the form of livestock, Mongolia's informal mechanisms of support to the elderly are limited by poverty. Estimates vary, but there is no doubt that a substantial percentage of Mongolia's population, perhaps between 15-25%, has difficulty meeting the basic needs of food, clothing and shelter. Many of those poor are elderly.

## **II. Analysis of the Pension System**

### **The Reform**

On June 10, 1999, the Mongolian Parliament passed legislation designed to reform the country's public pension system. The reform will be executed in two steps.

Introduction of Individual Accounts: In January 2000, the reform introduced a system of unfunded individual accounts (also referred to as notional defined contribution accounts), through which a worker's pension will be determined by the total lifetime amount of contributions made by the worker (and by employers on the worker's behalf). Benefits to current and new retirees will continue to be funded on a PAYGO basis, financed by a 19% contribution rate, although the share paid by employees will rise from 5.5% to 7.5% and the share paid by employers will fall from 13.5 % to 11.5%. (The change in the contribution rates will be accompanied by a legally mandated "gross up" such that workers continue to receive the same take-home pay.) Of the 19% total contribution rate, 15% will be applied toward an individual's account. The remaining 4% will be shown as a deduction to contributions used to fund the costs of administering the system and social transfers, including a minimum pension guarantee and provisions for survivor and disability pensions. The observed three-year rolling average rate of growth in average wages will provide the rate of return (or notional interest) applied to these accounts. Unisex retirement tables based on existing life expectancy will determine benefits at retirement.

Introduction of Partial Funding: The government views the introduction of unfunded individual accounts as an interim step designed to manage the cost and risk of moving to a partially funded system in the presence of underdeveloped capital markets and limited governmental resources.<sup>8</sup> Ultimately, contributions from current workers and the realized

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<sup>8</sup> The current balance within the general budget (current revenue minus current expenditure) was less than 2% of GDP in 1997, the most recent year for which data was available.

value of investments will fund pension benefits. Starting in 2005, the government will invest 3% of the 19% total contribution rate in securities. Over time, it will permit more funding, with the expectation of reaching 7.5% investment by the year 2020. The timing of this second step of the reform will depend on developments in capital markets and in the capacity of the fiscal envelope to pay for the cost of transition.

The use of individual pension accounts – funded in the short run on a PAYGO basis – as a transition mechanism reflects the government's belief that partial funding should be introduced gradually in order to (i) minimize investment risk, (ii) spread the cost of the transition to the general budget over time, and (iii) avoid forcing current workers to pay for the entire cost of the transition.

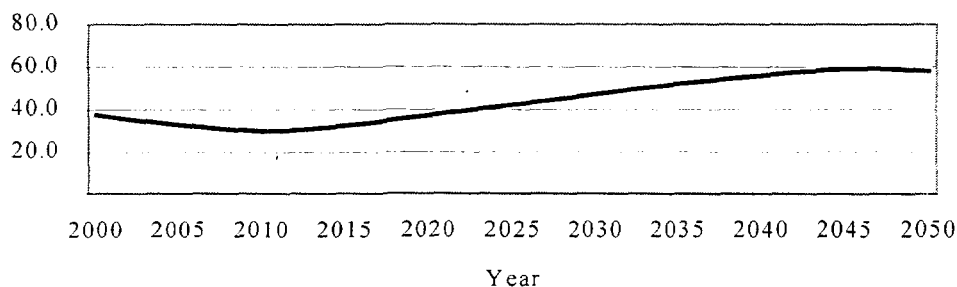
The pension reform will not affect those persons who are already retired or who are close to retirement. Current pensioners will continue to receive their pensions under the old program and will not be affected by the reform. Persons born prior to 1960 will remain under the old program. Herders and the self-employed will participate on a voluntary basis only.

A minimum pension guarantee, set at 20% of the national average wage plus 0.5% of additional credit for each year of service over 15 years, will support individual accounts. Persons with less than 15 years of service credit will not be eligible. The reformed program will continue to provide benefits to survivors and disabled persons at levels roughly comparable to those provided under current law.

### **Fiscal Sustainability**

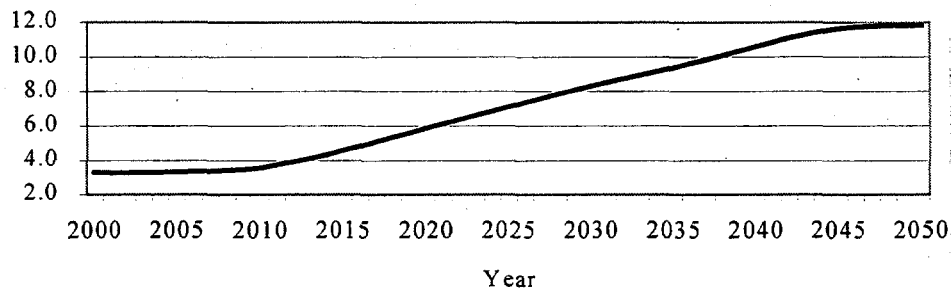
The current pension system is not self-financing. Transfers from the general budget finance approximately 30% of the costs of benefits. The decline of the wage bill brought about by the economic crisis is the immediate cause of this situation. However, even strong economic growth and improvements in contribution compliance would not result in self-financing of the system in the long term. Favorable demographic trends would ease financial pressure on the pension system for the next decade or so but would eventually reverse, causing sustained monotonic degradation in system dependency ratios over the long term (Figure 2). This was one of the primary arguments cited by the coalition government for reforming the system.

**Figure 2. Old Age Pensioners Per 100 Contributors**



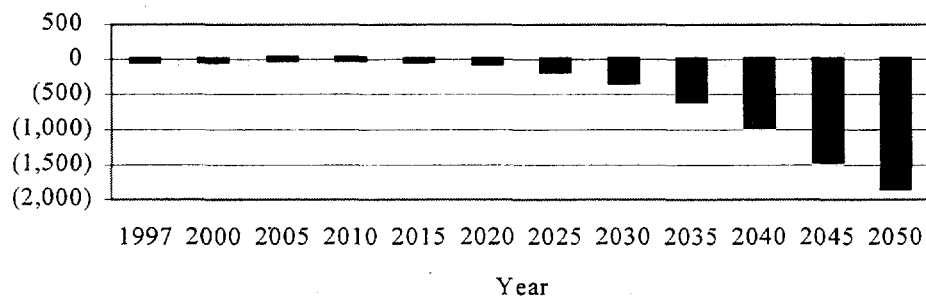
The costs of benefits under the current program expressed as a percentage of GDP are modest by comparison with other countries but would rise over the long term (Figure 3).

**Figure 3. Cost of Old Age Pensions, % GDP (Current Law)**



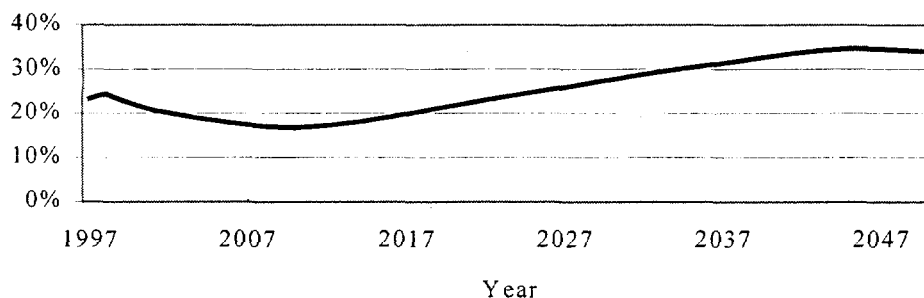
Contributions could be expected to improve, but after a short period of very modest cash surpluses, the program would generate substantially negative cash deficits over the long term, absent large increases in the contribution rate or other measures to curb costs (Figure 4).

**Figure 4. Annual Cash Flow Under Current Law (SUS m)**



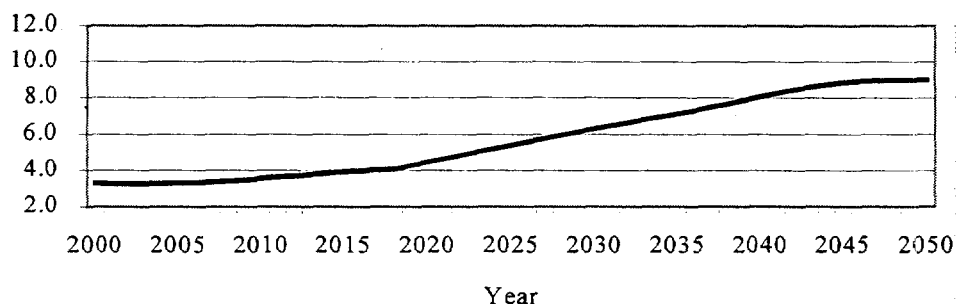
The cost of benefits expressed as a percent of taxable wages shows the same trend (Figure 5).

**Figure 5. Benefits as % of Taxable Wages (Current Law)**



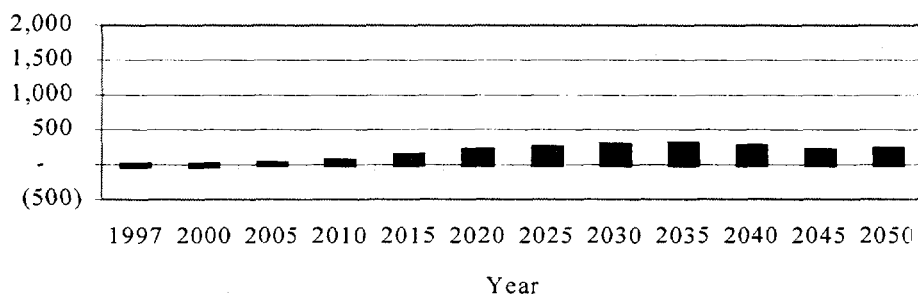
Under the reformed system, the cost of benefits expressed as a percentage of GDP will rise over the long term and peak at levels substantially lower than under current law (Figure 6).

**Figure 6. Cost of Old Age Pensions as % of GDP (Reform)**



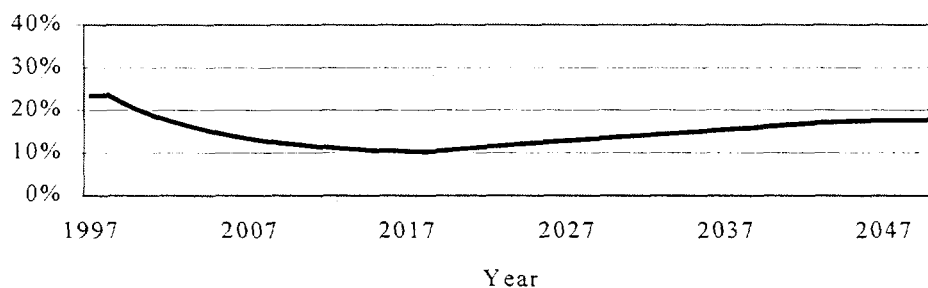
The system is expected to generate modest cash surpluses after a period of 20-25 years (Figure 7).

**Figure 7. Annual Cash Flow Under Reform (\$US Millions)**



The cost of benefits expressed as a percentage of taxable wages illustrates the same trend and suggests that the reformed program should be sustainable under the current 19% contribution rate (Figure 8).

**Figure 8. Benefits as % of Taxable Wages (Reform)**



## **Coverage, Benefit-Contribution Link and Distributive Effects**

In July 1998, there were around 387,000 pension fund contributors from state-owned enterprises, budgetary bodies and other enterprises with formal labor agreements. Private sector voluntary contributors numbered less than 8,000. Overall, this represents a contributor/labor force ratio of about 50%.

The current benefit formula provides opportunities for workers to “game” the system by underreporting income until five years prior to retirement without suffering any reduction in benefits. In addition, the formula is difficult for many workers to understand. This creates incentives for the migration of the workforce from the formal to the informal economy. Applying a high discount rate to the value of future pension benefits, workers look for opportunities to negotiate informal labor agreements outside the net of the social insurance program. Although Mongolia’s total social levy is quite low, for many workers the opportunity to increase cash income through evasion is attractive. The lack of an obvious connection between contributions and benefits contributes to the widespread underreporting of income within the formal economy. Also, the absence of an automatic mechanism for indexing pensions after retirement erodes the real value of pensions for all retirees<sup>9</sup> and creates inter-generational inequities when ad hoc measures are adopted under political pressure from retirees.

The introduction of individual accounts under the new reforms will result in reduced benefits for many groups in the population. Such reductions are necessary in order to restore the financial stability of the pension program over time and to depress the rates of return currently being received by many retirees – the average benefit (expressed as a percentage of the average wage) ranges from 30%-35%, although the benefit formula actually provides for a replacement rate in excess of 60% with thirty years of service credit. Such high rates of return are not only unfair but, given economic and demographic trends, will necessitate increasingly higher contribution rates or substantially lower benefits for future generations.

Given that the exact transition path to partial funding will depend upon developments in the capital markets and on the capacity of the general budget to pay the transition costs, it is best to conduct the distributional analysis based solely on the introduction of individual accounts. The introduction of partial funding may result in higher than projected benefits. The main effects under the reformed program in comparison to current law will be the following:

- Persons who become disabled will receive marginally higher benefits;<sup>10</sup>
- Spouses of persons who die before reaching retirement will also receive marginally higher benefits;<sup>11</sup>

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<sup>9</sup> This was particularly true during the period 1991 to 1995, when annual inflation regularly exceeded 50%.

<sup>10</sup> The increase in benefits is more substantial for persons with fewer years of employment.

- Workers eligible for the minimum pension will receive benefits that are roughly comparable to the benefits provided under current law;
- More women will earn the minimum pension;<sup>12</sup>
- Workers with full service histories (35 years or more of employment) will receive benefits that are roughly comparable to the benefits provided under current law; and,
- Workers with shorter or intermittent work histories will receive lower benefits, as illustrated by Table 1.

**Table 1. Replacement Rates Under Current Law and the Reform**

Years of Service	Males		Females: Age 60		Females: Age 55	
	Current	Reform	Current	Reform	Current	Reform
40	65.9%	59.1%	65.9%	59.1%	--	--
35	59.3%	51.7%	59.3%	51.7%	59.3%	46.0%
30	52.7%	44.3%	52.7%	44.3%	52.7%	39.5%
25	46.1%	36.9%	46.1%	36.9%	46.1%	32.9%
20	39.6%	29.5%	39.6%	29.5%	39.6%	26.3%

## **Administration and Investment**

The State Social Insurance General Office (SSIGO) handles the operation of the social security system (e.g., collecting contributions and making payments). The accumulation of reserve funds under the reformed system will likely to be modest and will be used to help finance the transition to partial funding. It is unlikely that SSIGO will have to manage the investment of substantial reserve funds.

The current program is, at best, neutral with respect to economic growth. There are a number of arguments that can be made for the gradual introduction of a modest level of funding within the context of the public pension program,<sup>13</sup> one of which is the possibility to facilitate

<sup>11</sup> The increase in benefits is more substantial for spouses and dependents of workers who die with fewer years of employment.

<sup>12</sup> Approximately 24% of women retiring initially under the new system are expected to be eligible for the minimum pension.

<sup>13</sup> First, over the long run, aggregate savings may be increased. Empirical evidence in support of this, of course, is inconclusive, but the argument may be more robust in Mongolia where levels of household savings are among the lowest in the region. Second, funding may mitigate the labor force and demographic risks resident in the financing of the current PAYGO system. (Admittedly, this gain comes at the expense of exposure to other risks, but these new risks could, to some degree, be addressed through legal and regulatory oversight and investment diversification, particularly if funds are invested in the financial markets of other countries.) Third, funding offers, at least in theory, a more efficient mechanism for financing retirement income – but this argument is likely to apply only in the very long term in Mongolia.



development of the capital markets and improve the efficiency of capital allocation within the economy. Given the current state of capital market development, however, any immediate move to introduce funding would clearly be premature.<sup>14</sup>

Given the state of capital market development and the limited fiscal envelope for funding transition costs, partial funding will be introduced gradually, over a twenty-year period. The government recognizes that (i) the capital markets must be sufficiently developed for the invested capital to be used efficiently to generate reasonable returns at reasonable risk,<sup>15</sup> (ii) the legal and regulatory structures required to protect the integrity of the markets and the interests of pensioners must be developed and tested over time, (iii) the administrative capacity of the social insurance organization must be capable of supporting the transition to partial funding, and (iv) the cost of transition should be spread over time in order to avoid placing pressure on the general budget.

The total cost of transition is estimated to be approximately 90% of current GDP. The government hopes to finance a substantial portion of this through cash surpluses generated by savings in benefits achieved as a result of the reform, under the belief that transition costs should not be funded from increased governmental borrowing. Preliminary estimates suggest this may be possible, given that the introduction of partial funding will generate savings of approximately 1.9% of GDP per year if the transition is accomplished over 20 years.

### **III. Reform Issues and Options**

The coalition government demonstrated commendable political resolve in passing the 1999 reform, which represents a reasonable approach to a difficult set of issues. The government views the pension reform as being consistent with its stated commitments to (i) introduce market-based economic reforms intended to encourage the development of the private capital markets, increase economic growth and improve living standards; (ii) protect the needs of the elderly and persons close to retirement; (iii) insure that current workers will receive reasonable pension benefits, without unreasonable risk; (iv) make the pension program financially stable and eliminate its dependence on the general budget; and (v) preserve the concepts of fairness and individual equity in how the program treats workers.

The challenge now before the government is to implement the first step of the reform successfully and carefully address the issues for the future, including:

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<sup>14</sup> The capital markets in Mongolia are at the very earliest stages of development. The longest-term government securities currently have a maturity of sixty days. There is no market for corporate bonds, and the market for corporate equities is thin and largely illiquid.

<sup>15</sup> Capital could, of course, be invested abroad, but the few countries have overcome the political resistance typically encountered by such a proposal.

- Legal and regulatory groundwork. This will be necessary to support the gradual introduction of partial funding in 2005.
- Administrative capacity. The new system will require improvements in this area, especially regarding the introduction of partial funding and the investment function.
- Financial market development. The long-term fiscal health of the system, and ultimately benefit levels, will depend on the maturation of the financial market to provide investment options for reserve funds.

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## Papua New Guinea (PNG)\*

### Overview of Formal Old-Age Support

The main pension fund in the country is the National Provident Fund (NPF), which began operation in 1980. Under the NPF Act, participation is obligatory for companies with 20 or more employees and voluntary for others. The contribution rates are 5% of salary for employees and 7% for employers. Eligibility for benefits is at age 55 (lump-sum) or at a reduced level after six months of unemployment. The NPF has a death/survivors benefit, a disability benefit, a housing advance scheme, and a voluntary school fee benefit savings scheme. Some companies have obtained exemptions from the NPF and set up their own small funds.

There are separate schemes for public sector workers and defense force personnel. The Public Officers Superannuation Fund (POSF), a mandatory accumulation fund scheme for public employees (police, civil servants and teachers), replaced a previous defined-benefit scheme in 1991. Member contributions occur at a rate of 6% of salary, while the government pays its share plus accrued accumulations (8.4%) only when benefits become available to the retiree. This means that the fund is only partially-financed and the government bears significant deferred liabilities. The fund for the military is known as the Defense Force Retirement Benefit Fund (DFRBF).

### I. Background

Papua New Guinea is a middle income country with a GNP per capita of US\$890. However, most of the population – especially the 85% whose livelihood depends on agriculture, the highest percentage in the East Asia and Pacific region – experience living standards equivalent to those in low-income countries. In fact, poverty is widespread, with 37% of the population living in households where the consumption level is below that needed to achieve minimum nutritional intake and to purchase a set of minimum required nonfood items.

From 1991 to late 1994, the government pursued an expansionary fiscal policy and an inappropriate mix of financial and economic policies, which contributed to a steady decline in the quality and coverage of basic public services. A structural adjustment program through the World Bank's Economic Recovery Program Loan helped to reestablish macroeconomic stability. In 1997, the East Asian financial crisis and an *El Niño*-induced drought caused a rapid drop in PNG's terms of trade. The drought reduced agricultural output, hindered production in some mines and decimated the food crop. GDP declined by 4.7% during the year but rebounded to 2.5% in 1998.

The country's population of 4.8 million is still quite young, with only an estimated 7.6% over the retirement age of 55 in 2000. The total fertility rate remains very high (at around 4.8 births in 1995), and life expectancy at birth is one of the lowest in the region, at 58 years in 1998. Annual population growth is around 2.3%, and the size of the population is expected

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\* Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) prepared this profile, with input from Mark C. Dorfman.

to double in 30 years. The urban population, which accounts for about 17% of total population, is growing at a rate of 4.6% per year.

## **II. Analysis of the Pension System**

### **Financial Status and Coverage**

Assets of the contractual savings sector in PNG were an estimated K 850 million (US\$ 405 million) at end-1998, or 11% of GDP. The total value of NPF's assets at end-1999 was K124 million<sup>1</sup> (US\$ 47 million). Because many of NPF's assets are not income earning and such income goes to pay NPF's debt obligations, contributions received during 1999 roughly equaled the amount of benefits and withdrawals.

At end-1998 the POSF had total assets of K 528 million (US\$ 252 million). The total of contributors' accounts was K 415 million (US\$ 198 million). Since the legislation requires the government to pay its portion of contributions only when an employee retires, these amounts represent only employee accumulations plus the amount of benefits that POSF has paid out and is awaiting reimbursement from government. The government has not undertaken a recent actuarial study to project the extent of its future liability. However, the amount of government current arrears to POSF for past retirees was K 65 million at end-1999. Finally, assets of the DFRBF were K 60 million at end-1998.

At end-1998 total membership in the NPF and POSF was about 160,000; in the DFRBF, 5,000. Using the 1997 labor force estimate of 2,203,123, the total member to labor force ratio, or coverage, equals 7.3%. However, actual contributing membership is lower. For example, of 100,000 accounts with the NPF, only an estimated 60,000 were active in 1998.

### **Governance, Administration and Investments**

The governance structure of the NPF and POSF places them under government influence. The NPF Board is government-appointed and composed of three representatives each from employers, trade unions and government. The NPF Board is currently not constituted. The government chooses the POSF Board, consisting of three representatives each from the state and contributors (police, civil servants and teachers). In the case of the POSF, the responsible government minister may terminate the appointment of any board member at short notice.

Investment management decisions in both NPF and POSF have been subject to political influence. Operating in a small economy with large investment concentrations, it is difficult

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<sup>1</sup> This figure is from the 1999 audited financial statement from the Auditor General and includes K 125 million in losses (primarily due to revaluation) that have not been written to members' accounts at the time of preparation of this profile.

to fully divorce such investment decisions from government objectives other than maximizing returns for members. For example, the NPF took on a large volume of debt obligations that compromised its liquidity position. The POSF suffered as a result of the Cairns property purchase, which lacked commercial scrutiny according to the Auditor General's report, and the acquisition of long-term inscribed stock from the Bank of PNG through the offering of repurchase options that were not invoked due to a fall in interest rates.

Partly as a result of the influences above, return on investment has generally been poor in both institutions.<sup>2</sup> Between 1992-96, annual earnings of the NPF averaged less than 9%, compared to 10% inflation. One noted deficiency has been the lack of application of benchmarks to judge performance against risk and market alternatives. The Board uses general reserves to smooth earnings rates by only apportioning a part of accumulations and revaluation increases to members' accounts. At end-1999, the composition of the portfolio was as follows: equities (mainly PNG-based mining companies), 26%; government securities, 49%; and properties, 24%. Although asset allocation guidelines were put into place in 1999,<sup>3</sup> asset allocation has shifted markedly from year to year, particularly given the concentration in individual securities. For example, in comparison to 1999, the June 1995 portfolio consisted of government securities (34%); interest-bearing deposits (52%); and funds at call, equities, loans and properties (14%). Volatility has resulted due to high exposure to speculative mining equities and large individual properties.

The portfolio composition of the POSF at end-1998 was 19% properties, 22% government securities, 18% domestic interest bearing deposits, 28% quoted PNG-related shares and 13% government development loans. Despite the portfolio's differences in comparison to that of the NPF (including the fact that POSF has no debt obligations), its performance has been about the same, at around 9% average return during the 1990-1998. The total return was 17% in 1998 and approximately 14% in 1999. The distributions to member accounts have in some years been higher than investment returns, resulting in a draw down of general reserves, while at other times (1999) they have been less than the investment returns, resulting in an increase in the general reserves.

### **III. Reform Issues and Options**

The current government has recognized the importance of reforming the pension and superannuation industry and has (i) publicly announced its intent to undertake reforms, including opening up of the NPF to competitive management and drafting and passing legislation regulating mandatory and voluntary pensions and the life insurance industry by August, 2000; (ii) instructed the Central Bank to begin preparations to establish a pensions

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<sup>2</sup> Administration costs do not appear to be a factor in reducing return to member accounts. The NPF expenses amount to around 1.5% of assets under management, which is quite acceptable by international standards. The investment firm that manages DFRBF resources charges a fee at the same rate (i.e., 1.5%).

<sup>3</sup> These were as follows: (i) equities – 20-35%; (ii) government securities – 30-40%; (iii) interest bearing deposits – 10-20%; (iv) loans – 10-25%; (v) properties – 20-30%; and (vi) international (0%).

and insurance oversight unit charged with carrying out the mandate in the legislation; (iii) established a pension reform working group with broad representation to provide input to public policymakers as the reform process goes forward (iv) commissioned financial reviews of the NSF and POSF; and (v) constituted a Commission of Enquiry to investigate potential legal misconduct in the management of NPF. The government also intends to establish an account in the Central Bank to deposit new contributions to the NPF during an interim period in which the institution's portfolio is restructured.



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## Republic of The Philippines\*

### Overview of Formal Old-Age Support

The Philippines has a publicly managed, defined-benefit old-age income scheme as part of its Social Security System (SSS), established in 1957. Participation is compulsory for all private sector employees and the self-employed with monthly earnings in excess of 1,000 pesos. The system provides full retirement pension benefits at age 60 with 120 months of contribution. Monthly pension benefits equal the average of a worker's most recent 60 monthly salary credits multiplied by 2% for each year of credited service, plus 300 pesos (29.47 P = US\$ 1.00, 1997; 40.89 P = US\$ 1.00, 1998). Minimum pensions of 1,200 and 2,400 pesos are available after at least 10 and more than 20 years of credited service, respectively. A thirteenth month pension is paid in December. Those who do not qualify for pensions receive a refund of all contributions with interest.

Financing for the system comes from an 8.4% payroll tax on the first 12,000 pesos of monthly earnings divided between employees (3.33%) and employers (5.07%). The system is still relatively immature, but the level of payouts has recently caught up to contributions. Thus, surplus derives only from investment income. Reserves currently total around 5% of GDP.

In addition to the SSS, private sector workers benefit from a Mandatory Retirement Pay (MRP) provision that obligates all employers – employers in retail, service and agricultural industries with 10 or fewer employees are exempt – to pay retiring workers the equivalent of one-half month's pay for each year of service. There is no pre-funding regulation. Although no ceiling exists on earnings levels to which the MRP mandate applies, employers can offset occupational pension payments or any Home Development Mutual Fund (Pag-IBIG) deposits that an employee removes at retirement against the MRP liability. Larger firms and those under collective bargaining contracts often voluntarily sponsor Tax-Qualified Occupational Pension Plans (TQOPP). In fact MRP represents a minimum pension level, and the TQOPPs act as a means of offering more generous pensions.

Public sector employees are not members of the SSS, but rather, of a similar scheme, the Government Services Insurance System (GSIS). Calculation of retirement benefits, available at age 60, involves multiplying the average of a worker's most recent 36 months of salary credits by 2.5% per year of credited service. GSIS members contribute 9% of earnings up to 12,000 pesos a month and 2% of their earnings above that ceiling, while the employers pay 12% of all earnings, which includes life insurance (4%). The GSIS is slightly more mature than the SSS but has reserves of 4.2% of GDP.

A final mandatory savings mechanism is the Home Development Mutual Fund (Pag-IBIG), which covers SSS and GSIS members – although participation is voluntary for those with monthly income less than 4,000 pesos. Contributions are 4% (divided by employee and employer) for monthly earnings between 4,000 and 5,000 pesos. Thus, the maximum total monthly contribution is 200 pesos, but employees may contribute extra without the employer matching it. The funds primarily finance housing loans, but balances are available at retirement or after 20 years of contribution.

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\* Yvonne Sin, (ysin@worldbank.org) and Ian W. Mac Arthur (imacarthur@worldbank.org), The World Bank, HDNSP, prepared this profile, with inputs from Alberto Musalem, CMD (amusalem@worldbank.org).

## **I. Background**

Up until the early 1960s the Philippines' per capita GDP was second only to Japan's in the entire Asian region. However, the country's economic performance suffered as a result of the political turmoil during the Marcos era, including the "People Power" revolution and various coup attempts.<sup>1</sup> More recently, steady economic growth has resumed (except in 1991-92), transforming the country from the "poor man" of the region to one of Asia's fastest emerging economies. A key factor in this recovery was the government's renewed dedication to macroeconomic stability and export-oriented growth. Government strategies included improving infrastructure, overhauling the tax system to bolster revenues and moving toward further deregulation and privatization of the economy. Filipinos experienced tangible benefits in the form of reduced unemployment and underemployment.

The East Asian financial crisis in 1997 did not affect the Philippines as much as some other Asian countries, but the *El Niño*-induced drought caused problems, particularly in rural areas.<sup>2</sup> Real GDP growth decelerated from 5.2% in 1997 and was slightly negative in 1998, but the recovery in 1999 brought back positive growth of at an estimated rate of 3.2%. During the crisis, along with the unexpected plunge of the Philippine peso, the stock market dropped, leading to increased lending rates from private banks and a higher inflation rate. Through February 1998, layoffs attributed to the crisis were reportedly under 20,000, although the increase in unemployment may have also been associated with a slowdown in new hiring. The regional nature of the crisis likely reduced remittances, both from abroad and between urban and rural areas. This likely impaired the ability of informal safety nets to mitigate some of the effects of the crisis, at a time when the drought conditions heightened the need for these informal networks.

The labor force in 1998 amounted to 30.2 million of a total population of around 76.1 million. Among those employed, about 40% worked in agriculture, fishing and forestry. Up until the recent economic downturn, the overall level of unemployment had been decreasing steadily – from a high of 12% in the mid-eighties to below 9%.<sup>3</sup> The downturn did not result in a marked increase in the unemployment rate, which rose marginally from 8.7% in July 1997 to 8.9% a year later. This likely relates to the large informal economy in the Philippines, whose workers are among the most vulnerable to falling demand, but whose numbers will not appear in official unemployment figures.

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<sup>1</sup> GDP per capita (in ppp terms) equaled about US\$ 2,600 in 1996, less than that for China and significantly below that of Thailand.

<sup>2</sup> The impact of the crisis has probably been greatest on the poor, who are concentrated in rural areas where the effects of the drought were strongest. Moreover, one of the fastest rising components of the price index has been the food item category. Because the poor spend proportionately more on food, they feel the price increases more severely.

<sup>3</sup> Unemployment has always been higher in the two largest regions, National Capital Region and Central Luzon, ranging from two to twelve percentage points above the national average.

Despite a less dramatic reduction in fertility in comparison to other countries of the region, population aging has still resulted from lower fertility and improvements in life expectancy. The total fertility rate decreased by nearly 45%, from 6.39 in 1970 to 3.64 in 1996, owing in part to the wider use of contraception – the contraceptive prevalence rate rose from 15% in 1968 to 47% in 1997. A recent survey of demographic and family planning indicators found that the vast majority of married women (81%) wanted either to space their next birth or to limit childbearing altogether. Given these indications, demographers anticipate that the TFR will continue to decrease, stabilizing around 2.10 by the year 2020.

Life expectancy at birth for males and females rose from 56 and 59 years in 1970 to 65 and 71 years in 1995, respectively. However, this improvement is not very favorable relative to other countries in the region at a similar level of socioeconomic development (e.g., Thailand's male life expectancy at birth now stands at 70). The proportion of the population aged 65 and over is currently 5.8% (slightly higher than in other Asian countries, around 4%) and is expected to reach 15.6% in 2040.

A central issue in social program planning in the Philippines is significant income inequality. The 1997 Family Income and Expenditure Survey revealed that income shares for families in the first to the ninth deciles had declined. Only families in the richest, i.e., the tenth, decile experienced an increase in their income share (of 4.2 percentage points). Moreover, the average income of families belonging to the tenth decile is now 23.8 times higher than that of families in the first decile (compared to 19 times in 1994). An increase in the Gini coefficient (from 0.4507 in 1994 to 0.4960 in 1997) for income distribution corroborates these findings.

Traditionally, the close family ties of the Filipinos have provided the primary support mechanism for the old, the sick and the otherwise economically dependent. However, they are showing signs of weakening, at least in the heavily urbanized areas. The impact of the economic crisis on the elderly was unclear, but unemployment, wage cuts and falling margins in the informal sector may have strained the elderly care function of the extended family.

As a result of growing income inequality and strain on the informal support system, apart from focusing on economic growth, the government has also directed attention more recently towards poverty alleviation and social protection.<sup>4</sup> At one level, this has taken the form of improving access to quality education and health services. Also, the Department of Social Welfare and Development and the National Anti-Poverty Commission sponsor livelihood programs and programs for the disabled and the elderly, as well as emergency assistance to crisis victims. The previous government called for the creation of a new provident fund to

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<sup>4</sup> Former President Fidel Ramos created a Social Protection Coordinating Committee (SPCC) in 1996 that continues under the current administration of President Joseph Estrada. The committee bears the mandate of reviewing social protection programs in the country and making appropriate recommendations.

further improve retirement income provisions.<sup>5</sup> Existing schemes have evolved over time; inevitably, there are gaps as well as overlaps that may affect their overall efficiency and effectiveness. The government has recognized the need for reform and taken several steps to improve the retirement income system.

## **II. Analysis of the Pension System**

### **Benefit Design and Coverage**

The benefit formulas of the SSS and GSIS schemes offer high replacement rates and allow for the introduction of certain distortions. The average GSIS retiree in the 1993-97 period received a 71% replacement rate of average monthly compensation, and, because of the high minimum pensions, the average SSS retiree in 1997 enjoyed an 89% replacement rate of final salary. While the SSS benefits those in lower income brackets more than those in higher income brackets – still, all members eventually receive more in benefits than the contributions they made – the benefits of the GSIS are purely earnings-related.

The SSS uses a retirement benefit calculation formula – based on the number of years of credited service (CYS), an accrual factor (2% for each CYS), and the average of the final 60 reported monthly salary credits – that creates a weak benefit-contribution link and, therefore, the possibility for manipulation. Until five years prior to retirement, reporting more than minimum earnings triggers payment of higher contributions without any increase in the size of benefits. To the extent that workers discount the possibility of needing death, disability or sickness benefits in the near future, they will perceive no particular reason for insisting that employers report accurately until the last five years of their career.

A further incentive to underreport comes from the definition of CYS. Under the law, any individual who reports 1,000 pesos in earnings for each of at least 6 calendar months receives credit for a year of service. Once this occurs, reporting additional months of earnings increases the amount of contributions due but not the size of the future retirement pension.

Finally, the minimum pension benefit under the law is 1,200 pesos per month for at least 10 years of credits and 2,400 pesos for 20 years of credits. This presents an attractive situation for anyone who can control the amount of reported earnings so as to contribute the minimum required for 10 years and then collect the minimum pension (i.e., a career contribution of 10,080 pesos<sup>6</sup> will yield a 2,400 pesos monthly benefit for life).

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<sup>5</sup> The proposal to establish a National Provident Fund System (NPFS) is patterned after Singapore's Central Provident Fund. The proposed contribution rate is 5% of monthly salary in excess of 5,000 pesos up to four times the ceiling of the regular SSS program, to be shared equally by the employer and employee.

<sup>6</sup> The calculation is as follows:  $(1,000 \text{ pesos/mo.})(6 \text{ mo./year})(20 \text{ years})(.084) = 10,080 \text{ pesos}$ . A worker needs 120 months of contributions (10,080 pesos) to be eligible for any pension. The same 120 months, if strategically placed, will qualify him/her for the 20 year pension of 2,400.

The GSIS uses an earnings-related formula, based on the last 36 months of earnings, to determine benefits. As a result, it may experience problems in terms of strategic manipulation (e.g., attempting to gain promotion shortly before retirement) and disproportionately high benefits for workers with steep age-earnings profiles.

In the absence of systematic methods for indexing earnings credits and benefits under both the SSS and GSIS, workers retiring during times of high inflation can end up receiving less adequate benefits than those retiring during periods of low inflation. This situation is likely to affect the lower income workers more, and in the absence of any reasonable safety net, they would also be the most vulnerable. Nevertheless, over the long run, ad-hoc adjustments in benefit levels have generally keep pace with inflation. For example, between 1990 and 1997, the SSS raised pensions nine times, which equated to an average annual increase of 11.9%. Over the same period, the inflation rate averaged 10% per year.

In principle, the SSS and GSIS cover virtually the entire workforce, but effective coverage is fairly low. According to the SSS, contributing members in 1997 numbered 6.3 million out of a labor force of 30.3 million, resulting in a coverage ratio of around 21%. Even after adjusting for the unemployed (2.4 million), unpaid family workers (3.7 million), overseas contract workers (660,000), and public sector workers (2.2 million), there should be a total contributing membership on the order of 22 million. Furthermore, as of the end of 1997, the cumulative number of workers registered over the years with SSS was only 19.1 million. Clearly, some workers have never registered in the system, and as seen above, those that have registered may not report any or all of their earnings in a given year. Of 2.2 million employees working in government and state corporations, there are only around 1.6 million GSIS members.<sup>7</sup>

Retirement benefits and coverage of the mandatory retirement pay scheme, tax-qualified occupational pension plans and Home Development Mutual Fund (Pag-IBIG) vary by class of worker and individual situations, and there is little quantitative information available on these provisions. The MRP applies only to workers in firms with more than 10 employees, and the occupational plans effectively reach only the subset of relatively better-off employees since they are a mechanism to attract and retain skilled labor – the plans offset the MRP and pay somewhat higher benefits. The MRP lacks portability due to long vesting periods (over 5 years) and provides lump-sum benefits only. Many employers bypass the regulation by hiring workers on temporary contracts. At this point, Pag-IBIG does not supply significant retirement benefits as around 80% of funds are invested in housing and 20 years of compulsory coverage have not yet accumulated – the time after which members may withdraw the accumulated balance.

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<sup>7</sup> There are separate systems for members of the armed forces and the judiciary, and casuals, contract and agency workers are not eligible for membership in the GSIS.

## **Fiscal Sustainability**

The short-term financial status of the SSS is quite strong. At the end of 1997, the Social Security Fund held 129 billion pesos (5% of GDP). This is a result of the system's immaturity, reflected in a fairly high ratio of contributors to pensioners (9.7). While there is presently a surplus of 16 billion pesos, current contribution income is roughly equal to current payouts, so that investment income is the only source of additional surplus.

Despite this seemingly healthy position for the time being, World Bank projections indicate that payouts will exceed income for the first time by 2019 and will deplete the reserve fund by around 2026. At that point, the contribution rate would have to increase from its current level of 8.4% to 13% for the system to be able to continue on a pay-as-you-go basis, and by 2060, the contribution rate would need to be about 28%, which is clearly not viable given the other statutory mandated savings contributions.

Options to improve the long-term financing of the system include lowering the benefits level, removing the minimum pension guarantee and increasing retirement age. These measures could reduce the projected required contribution rate (possibly to as low as 15%, depending on the magnitude of the changes). However, if the minimum benefit of 1,200 pesos were repealed, it would be desirable to replace it with a comprehensive budget-financed social assistance program, which is currently lacking.

The situation of the GSIS is similar to that of the SSS. The fund had accumulated 109 billion pesos (4.2% of GDP) by the end of 1997 and bears a current surplus of 17.6 billion pesos. The GSIS is slightly maturer than the SSS but still has a high ratio of contributors to pensioners (8.2). However, payouts will exceed income for the first time by 2030, and this will deplete the reserve fund by around 2038.<sup>8</sup> At that point, the contribution rate would have to increase from the current level of 21% to 41% for the program to be able to maintain its high replacement ratio on a pay-as-you-go basis.

The mandatory retirement pay scheme may represent a significant unfunded liability in the future. This is because Pag-IBIG will eventually reach the 20-year limit and members will be able to withdraw balances before retirement. Thus, the Pag-IBIG funds will no longer be available as an offset to the MRP.

## **Investments, Administration and Tax Treatment**

Traditionally, publicly managed contractual savings schemes in the Philippines have invested their assets in a way that has given preference to social goals as opposed to just financial

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<sup>8</sup> In addition, the government is not current with its contributions to GSIS and Pag-IBIG, which is an important source of retirement income for many.



return, but this practice eventually compromises the fiscal health of the schemes. From 1985 to 1995 the average inflation-deflated rate of return on SSS investments was 7.03%, while the GSIS generally performs more poorly (for example, 6.6% in 1995). These returns were below market rates – for example, treasury bills rendered 11.8% in 1995. The poor performance results from the composition of the investment portfolios, which bear a high percentage of investments in low-yield public projects (especially with the SSS) and loans to the government sector and to contributing members (more typical of the GSIS) at below-market interest rates (Annex 1).<sup>9</sup> Moreover, both SSS and GSIS manage their reserves in-house and are not totally free from political interference. In 1997, they were authorized to contract out their fund management, and both institutions are in the process of seeking the services of external fund managers (local or foreign).

The passage of new amendments to the SSS and GSIS laws has resulted in improved investment guidelines and policies. For example, the adjustment in investment ceilings for SSS now allows for greater investment in some areas (high-yield) while limiting it in others: private securities (40%); housing (35%); real estate (30%); short- and medium-term member loans (10%); GFIs and corporations (30%); infrastructure projects (30%); any particular industry (15%); and foreign investments (7.5%). The investment policies for GSIS are different, for example, it has to invest a minimum of 40% in member loans, including housing. Also, the SSS has reduced its interest subsidies on loans. Still, shortfalls remain in several areas, such as the requirement for investment grade bonds, minimum yield benchmarks, exposure limits, etc.

Since the government guarantees the solvency of the SSS, GSIS, and Pag-IBIG, different laws currently enable it (via the President and the Congress) to gain access to relevant information. The new SSS law requires annual public reports of activities, and an actuarial report of SSS is due at least once every four years. Similarly, the new GSIS law mandates an actuarial valuation every three years, and the Insurance Commission must also review the GSIS insurance business with the same frequency. Additionally, Congress conducts an assessment of Pag-IBIG every three years.

Key administrative challenges for the retirement schemes involve closing the compliance gap and reducing operating costs. Recent initiatives by the SSS to improve collections produced substantial results – an increase of roughly 60% between 1990 and 1997. Nevertheless, a huge coverage gap still remains. The changes to the SSS legislation allowed for stricter handling of violators (mainly employers), but this will help only marginally, and low compliance will remain as long as the underlying incentives for evasion and collusion persist in the benefit-contribution structure. Regarding operating expenses, the publicly managed schemes perform rather poorly. The ratio of administrative expenses to contributions is high

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<sup>9</sup> Such transactions (providing subsidized loans and low reliance on capital market instruments) are one of the reasons why capital markets in Philippines are underdeveloped.

for both the SSS (10.7% in 1995) and the GSIS (10.8% in 1996), especially compared to other countries in the region, such as Malaysia (1.99% in 1989) and Singapore (0.53% in 1990).<sup>10</sup> Ultimately, this can have an impact on the financial performance of the schemes.

The tax treatment of contractual savings in the Philippines is complex and sometimes inefficient because it taxes more than once and gives some institutions a competitive advantage. In essence, SSS and GSIS provided TEE status to employees' plan contributions up until April 1999, since then its status changed to EEE, which is the same treatment granted to employers' share of the contributions.<sup>11</sup> Pag-IBIG and Tax-Qualified Occupational Pension Plans (TQOPP) receive TTE status for employees' contributions and ETE for employers' contributions. However, the complexities come from differences in the corporate income tax treatment, the implicit tax on publicly managed schemes resulting from restricted investments, and, in some cases, the requirement to pay withholding tax on investments. Ideally, it would be more equitable and much simpler if all forms of contractual savings experienced the same tax treatment. The two preferred approaches are EET and TEE. The EET regime is more credible than TEE because the latter will always present the uncertainty of whether the government might also decide to tax benefits.

### **III. Reform Issues and Options**

Retirement income provision in the Philippines suffers from the lack of a coherent policy framework. In particular, there are unresolved questions about the desired combined level of earnings replacement and benefit distribution, as well as the role assumed by the various mandated programs. The government has indicated that it will appoint a special commission to develop recommendations for a comprehensive reform agenda, which should address issues such as:

- Sustainable financing of the SSS and GSIS. The schemes have high replacement rates of over 70%. The current level of contribution will not support such high benefits in the long run considering demographic trends. Thus, fundamental changes in the benefit structure may be necessary, in addition to other measures, to ensure the schemes' financial viability.
- Systematic inflation protection for retirement benefits. Neither the SSS nor GSIS adequately accounts for the effects of inflation on retirement benefits. Both make only ad hoc adjustments, a process that results in lack of security during intermediate periods.

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<sup>10</sup> The size of the contribution rate distorts this ratio, making comparisons between countries more difficult. Thus, these results should be interpreted with caution but still offer a general idea as to the relative efficiency of the different schemes.

<sup>11</sup> The Bureau of Internal Revenue announced on January 14, 1999, that as part of the government's Comprehensive Tax Reform Program (which became law in 1997), employees' payments to the SSS or the GSIS will no longer be subject to tax starting in April 1999. Benefit payments will remain tax exempt.

The poor are most vulnerable under these circumstances, when the marginal difference can affect their consumption of necessary goods. Even though the current method of correction for inflation has maintained the value of benefits over the long run, there needs to be a better mechanism of systematic protection. The indexation of benefits to inflation (i.e., adjustment on a regular basis with an appropriate period, considering trends in inflation) is the obvious solution.

- Reduction in evasion and non-compliance. In order to attain the schemes' goal of universality and equity, corrections should be made regarding overly generous crediting and incentives for under-reporting (essentially improving the benefit-contribution link). The distortions are readily identifiable and relate mainly to basing benefits on final career salary (last 5 and 3 years for SSS and GSIS, respectively), the definition of years of credited service (i.e., 6 months of reported earnings in the SSS) and the provision for minimum pensions (SSS).

The SSS has a good track record in improving collections. It should capitalize on this momentum to develop and fully implement a comprehensive and systematic approach for managing the collection process. With advances in information technology, it will be much easier to build automated systems for tracking employer compliance.

- Improving administrative efficiency. Operating expenses for the SSS and GSIS are very high for publicly managed schemes, considering their centralized nature and the fact that they can avoid the marketing costs that private schemes encounter.
- Sound fund management and regulation to improve returns, develop financial markets and avoid too-high risk. The recent legislation has created a better structure for maximizing investment return on contractual savings assets and stimulating the growth of capital markets. The financial sector is currently underdeveloped largely because of the practice of holding assets in government loans and illiquid securities. But as more of the investment shifts toward equities, the retirement income system itself can serve as a driving force for the creation of new financial institutions through the allocation of capital to increase future earnings and pension levels.

However, since the government guarantees the solvency of the public contractual savings institutions, it would be advisable to establish closer supervision, given the potential risk exposure. An independent agency, reporting directly to the President of the Philippines and staffed by professionals with the required actuarial expertise, will ensure the application of uniform actuarial standards to the disclosure of material by insurance and pension providers and ongoing monitoring in a fair and consistent manner.

- Uniform tax treatment of retirement provisions. Treatment under the SSS and GSIS is essentially EEE, which creates inequity in a context of limited coverage since

those outside the system do not receive the tax break. Different tax regimes govern Pag-IBIG and the TQOPPs, which creates an overall “competitive imbalance.” It would be best to adopt a single expenditure tax approach (TEE or EET) to all retirement provisions in order to establish fairness and efficiency.

- Creation of a safety net. A basic universal safety net for the elderly poor, financed from general tax revenues, currently does not exist but would help accomplish poverty reduction and redistribution without the distortions associated with redistributive pension schemes. The need for a safety net would be even more pressing if the SSS removed the minimum pension provision in its effort to establish a stricter benefit-contribution link.

### Annex 1. Allocation of SSS and GSIS Investments

Allocation	As of August, 1998		1997		1996	
	Amount (pesos, m)	% of total	Amount (pesos, m)	% of total	Amount (pesos, m)	% of total
<b>SSS</b>						
Government sector	55,594	37.7	50,289	36.0	45,512	37.7
Private sector	27,058	18.3	26,116	18.7	22,513	18.6
Housing	43,924	29.8	41,592	29.8	36,002	29.8
Real estate	5,105	3.5	4,950	3.5	2,772	2.3
Member loans	15,853	10.7	16,702	12.0	13,988	11.6
Total	147,534	100.0	139,649	100.0	120,787	100.0
<b>GSIS</b>						
Member loans	..	..	..	41.62	..	42.62

.. not available

Source: SSS Corporate Planning Department; GSIS Actuarial Services

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## Singapore\*

### Overview of Formal Old-Age Support

The main component of Singapore's social security system is the Central Provident Fund (CPF), a mandatory, publicly managed, defined contribution system based on individual accounts. In addition, Singapore has a stringent means-tested public assistance scheme officially designed to provide benefits lower than the minimum subsistence level of income.<sup>1</sup>

Aside from the CPF, two other pension systems operate in Singapore. The first is a non-contributory scheme for government employees. Until 1973 all government employees were eligible; however, in the 1973 and 1987 conversion exercises, pensionable employees had the choice to shift to the CPF, which produced mixed results. Presently, only new officers in the designated pensionable services (administrative, senior police and intelligence) and political appointees are on the pension scheme. As of January 31, 1999, there were 19,000 pensioners, but as restrictions on eligibility become fully effective their number should decline. In 1997-98 government expenditure on gratuities and pensions was S\$ 569.5 million,<sup>2</sup> equivalent to 3.7% of operating expenditure or 17.9% of expenditure on manpower. The pensionable employees may choose monthly pension until death, a lump sum payment, or a combination of the two. In 1995, the government set up a separate Pension Fund through a contribution from accumulated budgetary surpluses, which it supplements with annual contribution from the general budget. As of March 31, 1998, the Pension Fund had a balance of S\$ 11,657 million, slightly less than the S\$ 11,770 million in the previous year. In spite of the government's creation of some funding, the system is still based on a non-contributory, unfunded principle and functions on a "pay-as-you-go" basis. This approach is in sharp contrast to that of the CPF scheme for the rest of the population.

The second pension scheme is the provident fund scheme for certain categories of armed forces personnel called the Savings and Employees Scheme (the "Saver Scheme"), which came into existence on March 20, 1998. A Board of Trustees appointed by the Armed Forces Council will manage the fund with inputs from professional fund managers and the Monetary Authority of Singapore, the country's de-facto Central Bank. Unlike pensions, the balances in the Saver Scheme will not be taxed; there will be no salary ceiling on contributions; and those belonging to the fund will continue to enjoy post-retirement medical benefits as before. This scheme is more generous than the CPF – it is designed to encourage military officers to stay in service for 20-25 years and retire at age 40-45, with benefits similar to those of civilians retiring at age 55. Essentially, the scheme provides for benefits equivalent to 10-12% (20% for super scale officers) of an officer's gross monthly income to be deposited into an account which can be withdrawn after serving a specified period of time. This is in addition to the normal CPF contribution by employers.

\* Mukul G. Asher, National University of Singapore (mppasher@nus.edu.sg) prepared this profile, and Ian W. Mac Arthur, The World Bank (imacarthur@worldbank.org) revised it.

<sup>1</sup> Families receive monthly assistance ranging from S\$ 200 for one adult person household – equivalent to only 6.1% of the 1997 per capita GDP of S\$ 39,310 – to a maximum of S\$ 570 for a 4 person household consisting of one adult and three children. In January 1999, there were only 2,086 beneficiaries of public assistance, of which 1,701 were aged destitutes (Singapore, Department of Statistics, February 1999).

<sup>2</sup> In mid-April 1999, US\$ 1 = S\$ 1.70.

## **I. Background**

Singapore is an affluent city-state with a 1997 per capita income of US\$ 32,940 (US\$ 29,000 in ppp terms) for its resident population, the fourth highest in the world (The World Bank, 1998). In mid-1998 its total population was 3.87 million, while its resident population, comprising citizens and permanent residents, was 3.16 million (Singapore, Department of Statistics, 1999). Thus, the short-term foreign population accounts for 18.2% of the total population and 22.2% percent of the resident population.<sup>3</sup>

Demographic trends in Singapore, including a declining fertility rate, have produced one of the oldest populations in East Asia. The growth rate of the resident population has been around 2.0% per annum in recent years. This is the result of significant net immigration, as the total fertility rate has been below the replacement level since 1975. In 1997 the TFR was 1.64 – a rate of 2.10 is needed for the population to replace itself.

The median age of the resident population has increased from 28.3 years in 1987 to 32.6 years in 1997, and the dependency ratio (residents under 15 years and those 60 years and over divided by the residents aged 15-59 years) rose from 47.6 to 48.7 over the same period (Singapore, Department of Statistics, 1998). The proportion of the resident population over 60 years of age increased from 8.5% of the total in 1987 to 10.1% in 1998. As a result, the old age dependency ratio (those 60 years and over divided by those 15-59 years of age) has grown from 12.6% in 1987 to 15.0% in 1997. It is estimated that by the year 2030, 29.4% of the resident population of Singapore will be above 60 years of age, while the elderly dependency ratio will jump to 43.9%. Moreover, the average annual population growth rate has begun to exceed the labor force growth rate, and this trend is expected to accelerate.

In 1998 the number of “old-old” (i.e., those above 75 years of age) was about 86,000, little over a quarter of those above 60 years of age. Life expectancy at birth in 1997 was 75.0 years for males and 79.2 years for females (Singapore, Department of Statistics, 1998). It is well established that the “old-old” require long-term care, which is quite labor intensive and significantly increases health care costs. Since the current retirement age is 62 years – which will be gradually increased to 67 – the average retiree will require retirement financing for a considerable period of time.

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<sup>3</sup> The presence of foreign workers in such large numbers has enhanced the economic and tax base available to finance the social security needs of the resident workers. However, it severely constrains social security options because the highly open economy is very much dependent on capital and professional manpower, both of which exhibit considerable factor elasticity, requiring the tax burden on them to be kept low. Therefore, the individual must finance the majority of his or her social security needs.



## **II. Analysis of the Pension System**

The British colonial administration set up the CPF under the Central Provident Fund Act, which came into force on July 1, 1955.<sup>4</sup> A Statutory Board appointed by the Minister of Labor, with representatives of employers, unions, government and professional experts, runs the CPF. Currently, only those employees who are Singapore citizens and permanent residents are required to contribute to the CPF. Foreign workers, including professional expatriates, are exempt, and voluntary pension contributions by them or their employers are not tax deductible. The CPF, being a provident fund, is based on portable individual accounts that remain with the employee through job transitions.<sup>5</sup> The entire accumulated balances belong to the member's estate at death but are not subject to estate duties.

Particularly since 1968, the government has vastly expanded the role of the CPF to achieve financing for a wide variety of social, political and other objectives. These include home ownership, pre-retirement investment, insurance (life, home and health), tertiary education within Singapore, medical coverage (including the self-employed), and regular monthly income after age 62 (through the minimum sum scheme) (Annex 1). Thus, the CPF is not simply a social security scheme but also a primary socioeconomic policy making tool.

### **Contribution Rates**

To accommodate the ambitious goals reflected in this variety of schemes, the contribution rates from the employers and employees and maximum monthly contribution have increased gradually but significantly (Annex 2). Thus, the government raised the nominal contribution rate of 10% at the inception of the CPF in a series of steps to 50% by July 1984. As a measure to combat the 1985-86 recession, it reduced the rate to 35%. Only in July 1994 did the government achieve its then long-term rate goal of 40%, with equal contribution rates from the employers and the employees. However, the East Asian crisis necessitated a sharp reduction in the contribution rate from 40% to 30% as of January 1, 1999. Initially the cut is for a period of two years. Any restoration to the 40% rate would have to be phased in slowly because policy makers regard high CPF contribution rates as the main contributor to Singapore's lack of cost competitiveness.

The contribution rates are applicable to a maximum monthly wage of S\$ 6,000 per month, which is 2.4 times the average monthly earnings (excluding employers' contribution to the CPF) in 1998 of S\$ 2,549 (Republic of Singapore, Department of Statistics, 1999). In 1997 only 5.5% of the contributors earned above \$ 6,000 per month (Annex 3).

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<sup>4</sup> Notwithstanding the special pension schemes described in the Overview, the CPF is the most important scheme in Singapore and is the sole subject of analysis of this section.

<sup>5</sup> Members of the CPF get annual account statements, and a telephone hotline and website allow members to obtain useful information and check on their account status.

## **Coverage**

In analyzing the coverage data (Annex 4), there is a distinction between members and contributors. Any individual who has contributed even once during his or her working life becomes a member. In contrast, a contributor is a member who is actively contributing at any given point in time. The contributors to labor force ratio, after reaching a peak in 1984 at 72.3%, declined to slightly less than two-thirds by 1997. While this ratio is sensitive to the rate of unemployment, during the 1983-97 period, unemployment in the country was minimal.<sup>6</sup> Those excluded from the scheme, about one-third of the labor force, are foreign workers, the self-employed, and some low-paid contract workers. Since even the foreign professionals have been fully excluded since September 1998, the coverage ratio is expected to decline slightly.

The proportion of the members who are contributors has been declining steadily during the 1983-97 period, from 51.5% in 1983 to 44.0% in 1997. The 1997 membership of 2.782 million was nearly 90% of the total resident population. In 1997 the following industries accounted for the bulk of the 1.224 million contributors to the CPF: commerce, 297,100 (24.3%); manufacturing, 275,100 (22.5%); financial and business services 225,500 (18.4%); other services 218,400 (17.8%); and, construction, 80,000 (6.6%).

As of December 31, 1998, the number of employers paying CPF contributions was 99,589, a slight decline from 103,194 as of March 31, 1998 (CPF-PAL Internet website). The self-employed (defined as those who are not employees) numbered 242,400 in 1997, or 12.9% of the total labor force (Republic of Singapore, Department of Statistics, 1998). While it is compulsory for the self-employed to contribute to the Medisave scheme, this is not the case for the CPF. However, they can join voluntarily and avoid tax deductions on contributions.

## **Contributions and Withdrawals**

Contributions to the CPF are divided into three accounts: the Ordinary Account, the Medisave Account and the Special Account. The Ordinary Account may be used for housing, investments and other such purposes. As of January 1, 1999, those under 55 years of age contribute between 22-24% of the applicable wage to this account depending on age.

The Medisave Account enables members to pay for permitted hospitalization and out patient costs and to pay premium for health insurance for major illnesses, called Medishield. The premium for Medishield rises with age. Those above age 75 years, who are most in need but often cannot afford the medical care, are not covered. Deductibles, co-payment, yearly and life time limits, etc. mean that between one-third to two-thirds of the hospital bill (excluding

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<sup>6</sup> Except for 1987, when it was 4.0%, unemployment has hovered around 2.0% of the labor force (Republic of Singapore, Department of Statistics, 1998).

post-hospitalization care) will still need to be paid by individual members.<sup>7</sup> As of December 31, 1998, Medishield schemes served about two million members and dependants (CPF-PAL Internet website), slightly less than two-thirds of the population. Thus, one-third of the population does not even have the basic catastrophic health insurance. As of January 1, 1999, those under 55 years of age contribute between 6-8% of the applicable wage to this account depending upon age.

The Special Account is meant for retirement. Before the reduction in the contribution rate on January 1, 1999, 4.0% of the contributions went to this account. However, since the rate reduction, the account is receiving no contributions. If this continues the retirement provision may be adversely affected.

Member contributions as a percentage of GDP, after reaching a peak of 15.4% in the recession year of 1985, have shown a tendency to decline, reaching 11.1% in 1997. A similar pattern has prevailed for the contributions as a percentage of Gross National Savings (GNS). After reaching a peak of 36.2% in 1985, this indicator subsequently fell to 21.1% in 1997.

Net contributions (contributions less withdrawals) vary annually (Annex 4), yet high rates of withdrawal for various purposes (Annex 1) may compromise retirement funding. The withdrawals as a percentage of contributions have ranged from a low of 38.3% in 1983 to 105.0% in 1993. In 1998, withdrawals were 85.1% of contributions.

In most years well over half of all withdrawals have been for housing, reflecting the importance of the CPF in financing housing from the demand side.<sup>8</sup> Under the CPF Approved Housing Scheme purchasers may withdraw their CPF savings to pay the 20% down payment and to service monthly mortgage installments for purchasing government constructed housing (for details see Phang and Asher, 1997, 305-307). Since March 1986, the mortgage interest rate has been pegged at 0.1% above the CPF savings rate. Outright subsidies for public housing have been kept to a minimum, and expenditure on housing has not comprised more than 2% of total government expenditure in any fiscal year. Public housing prices have been affordable, mainly because the land prices, paid by the Housing and Development Board (HDB), are well below what private developers pay for their land. Under the Land Acquisition Act of 1966, the government and its agencies are able to acquire land for any public, residential, commercial or industrial purpose at pegged prices generally

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<sup>7</sup> During the October-December 1998 period, the average Medishield claim was S\$ 618, while for Medishield Plus (a more expensive version), it was S\$ 1,245 (CPF-PAL internet website). These relatively low amounts per claim seem to point to the limited nature of the health insurance provision under the CPF.

<sup>8</sup> CPF balances are not used to finance actual public housing construction. In order to enable the government's Housing and Development Board (HDB) to construct public housing and provide mortgage loans, the government has been providing it with loans at subsidized rates from its budgetary sources. As of March 1, 1998, total outstanding government loans to the HDB amounted to S\$ 55,070 million. As the HDB has been repaying loans over the years, gross budgetary support is even higher.

below the market rates.<sup>9</sup> Since 1981, it has also been possible to use CPF balances to purchase private properties, both for use and as an investment. The housing policy has demonstrated dramatic results: the home ownership rate increased from 29% in 1970 to 88% in 1990, and the share of the population living in government constructed flats rose from 36% to 87% over the same time period (Phang, 1997).

In addition to housing, health care and investment schemes are quite significant in terms of withdrawals. In recent years withdrawals from the Medisave Account have constituted between 3-5% percent of total withdrawals.

The withdrawals under Section 15 of the CPF Act (i.e., for retirement etc.) have fluctuated over time, ranging from a low of 10.8% of total withdrawals in 1993 to a high of 33.8% in 1983. More importantly, the average cash amount at withdrawal age continues to be quite low. Thus, during the October-December 1998 period, 15,469 members reaching the withdrawal age withdrew S\$ 301.8 million under this provision, for a mean withdrawal of only S\$ 19,510 per person (CPF-PAL Internet website). This is only 64% of the average annual earnings of workers, not counting employer's CPF contributions, which is clearly inadequate in terms of old age support.

It is possible that the Minimum Sum Scheme, the amounts invested under CPF's investment schemes, and the potential for converting housing equity into retirement consumption (through reverse mortgage<sup>10</sup> or through implicit contract with children, for example) could result in more adequate retirement provision than cash balances alone may suggest. While this may be the case for a relatively small proportion of the CPF members, the indications are that there will be many people who will still lack adequate financial resources in old age. This is revealed by the fact that the median balance for the active contributors at end-1997 was between S\$ 50,000 and S\$ 60,000 (equivalent to about 2 years of mean wage), even when pre-retirement withdrawals for housing, property and other investments were included. The inactive members are likely to have even lower balances.

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<sup>9</sup> The pegged price was the market value on November 30, 1973 from 1974 until January 12, 1988 when it was changed to the market value on January 1, 1986. If the market value at the date of acquisition is lower than the pegged price, then the market value is used for the purposes of compensation (Phang, 1997). The government currently owns more than 85% of total land in Singapore. It has recently announced its intention to move closer to paying market prices for any additional land acquired.

<sup>10</sup> However, public housing ownership rights in Singapore are incomplete or truncated, since the land on which the flats are constructed is leased from the state rather than owned. The lease period is usually 99 years. Since the public housing program is only three decades old, it is expected that as the remaining lease period becomes shorter, loans to purchase such older housing and the value of such housing will decline. Nevertheless, the government embarked in 1989 on a multi-billion dollar program to upgrade the public housing estates, with the households paying between 10% and 35% of the upgrading costs (Phang, 1997). Given the truncated ownership rights, the reverse mortgage method of using housing equity to finance retirement consumption would be even less effective than is normally the case. Indeed, the reverse mortgage transactions so far have been fairly small (less than 200) and have not involved public housing.

## **Member Balances**

During the 1983-97 period, member balances increased steadily from S\$ 19,504.7 million in to S\$ 79,657.4 million. However, in relation to GDP these balances appear to have stabilized in recent years at around 55%, a significant decline from the 1986 peak of 75.9%. At end-1998, they amounted to S\$ 85.3 billion (60.4% of GDP).

Annex 5 provides data concerning average CPF balances per member in relation to average monthly earnings for the 1987-97 period. While the average balance per member increased from S\$ 15,458 in 1987 to S\$ 28,633 in 1997, the average balances to average earnings ratio showed a significant decline from 11.6 in 1987 to 9.6 in 1997. Even at its peak, the average balance per member was equivalent to less than one year's average earnings. While it would be more appropriate to estimate the balances of the active contributors to assess the level of retirement financing, the CPF Board does not publish the relevant data. However, as noted above, the average withdrawal of those reaching the withdrawal age during the October-December 1998 period was equivalent to only 64% of the average annual earnings. Thus, in spite of rapid economic growth and rising contribution rates, average balances of the CPF member remain rather low.

By now policy makers accept that the CPF balances alone will be inadequate to finance retirement. In a recent survey, only 44% of Singaporeans with CPF accounts indicated that the CPF would be sufficient for old age support (Chan, 1998). The survey found that females were especially likely to find the CPF scheme inadequate for retirement financing, with the vast majority relying on their children for financial support. However, both demographic and attitudinal changes are likely to reduce the prevalence of this informal mechanism of old age support.

## **Tax Treatment of Pension Funds**

CPF contributions for citizens and permanent residents are exempted from the income tax. In 1997 CPF deductions by individual income taxpayers alone amounted to S\$ 3,617 million, or 2.5% of GDP. The value of the deduction depends on an individual's marginal income tax rate. Those outside the individual income tax net, about 75% of the labor force in 1997, do not get any tax deductibility benefits from the CPF. For others the value of the benefit rises with the marginal income tax rate. Therefore, the tax deductibility feature has an inherent "upside-down" subsidy impact. Employer contributions are also tax deductible.

In addition to contributions, accumulated income, capital gains from pre-retirement withdrawals, including from stocks (except certain types of property transactions), and retirement withdrawals are all exempt from taxation. This is more a liberal tax treatment than

in other high-income countries where at least one of the three flows is taxable.<sup>11</sup> On the other hand, gratuities, annuities, and pensions not related to the CPF or the public sector are all taxed (Lim and Ooi, 1998). For annuities, premiums paid to insurance companies are not taxable, while the sums received from the plans are taxable. This has created a disincentive for the development of alternative pension plans and for the annuities market.

Singapore provides an extensive set of tax incentives (mainly in the form of reduced company income tax rates) for approved fund managers. For example, the 1998-99 budget provided for tax exemption on disposal related gains from unit-trusts to fund management companies.

### **Investment of CPF Balances**

There are three separate pools of funds for investment under Singapore's CPF system: member balances, insurance funds and pre-retirement withdrawal funds. Each of these pools is subject to different investment guidelines.

The largest source of funds is the members' balances with the CPF Board. As of December 31, 1998, members' balances amounted to S\$ 85,276.8 million (CPF-PAL Internet website). According to the CPF Act, these funds must be invested in government bonds (and in advanced deposit with the Monetary Authority of Singapore to be converted into government bonds at a later date). The bonds are floating rate bonds issued specifically to the CPF Board to meet interest and other obligations, and they do not have quoted market values. The floating rate is exactly identical to the interest rate paid by the CPF Board to its members. Since 1986 the interest rate paid by the CPF Board on members' balances has been a simple average of the 12-month deposit and month-end savings rate of the four major local banks, subject to a minimum nominal rate of 2.5% as spelled out in the CPF Act. The interest is computed monthly and compounded and credited annually by the CPF Board. Interest paid on balances in the special account is 1.5 percentage points higher than the rate paid on balances in the Ordinary Account. Currently, the interest rates on fixed deposits and on savings deposits are weighted equally. However, from July 1, 1999, the fixed deposit weight will increase to 80%, with a corresponding decline to 20% for the savings deposits. This administrative change can be expected to lead to higher rates of return to members since fixed deposits have normally earn better rates than the savings deposits.

The administrative arrangements for paying short-term interest rates for long-term funds and restricting the rate to what four relatively insulated local banks pay on local currency deposits reveals the administered, rather than market determined, nature of the interest rate paid on CPF balances. Therefore, it is not surprising that during the 1987-1997 period, the real annual compound interest rate credited to the CPF member's accounts (defined as the

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<sup>11</sup> The issue of implicit tax on CPF balances, arising from the difference between the interest actually credited to the members' accounts and the return earned on the balances, is discussed later in the paper.

difference between the nominal rate less inflation as measured by the GDP deflator) was roughly zero percent. Indeed, in several years during this period, the real interest rate was negative.

The administrative guidelines also tend to obscure the non-transparency of the investment portfolio and performance arising from the ultimate deployment of the members' balances. Given the large budget surpluses over a considerable period (Asher, 1999),<sup>12</sup> the CPF funds have not been needed to finance infrastructure or other government expenditure. Thus, macroeconomic analysis does not support the widespread belief that the CPF has financed actual construction of public housing, as opposed to facilitating housing mortgage for members. Actually, the government – through the Singapore Government Investment Corporation and other government-controlled holding companies such as Temasek Holdings – invests the CPF funds. There is, however, no transparency or public accountability concerning where these funds are invested (it is believed that the funds are predominantly invested abroad),<sup>13</sup> the investment criteria, and performance.<sup>14</sup>

An estimate of the implicit tax on CPF member balances may be derived from a March 1996 statement in Parliament by the Finance Minister indicating that investment returns on Singapore's reserves have averaged over 5.0% (no precise figure was given) in Singapore dollar terms over the last 10 years. Subtracting the nominal rate of 3.5% in 1997 from the 5.0% rate provides a difference of 1.5%. Multiplying this by the average member balance that year (calculated as the beginning balance plus one half of the addition between the beginning and the end of 1997) of S\$ 69.3 billion gives a figure of S\$ 1,039.5 million, equivalent to 6.5% of the contributions in 1997. It is important to recognize that so long as the nominal rate paid to members is less than what the government earns on their balances, the members will be paying an implicit tax, although the amount varies each year. Moreover, as lower income individuals have a disproportionate share of their wealth in the CPF, such implicit tax imposes relatively heavier burden on them. This illustrates how political risks and non-transparency can arise even in the context of individualized accounts.

The second pool of investment funds consists of insurance funds, whose value is relatively small, amounting to only S\$ 1,500 million in 1997. These funds are invested in fixed deposits, negotiable certificates of deposit, equities, and bonds. Out-sourcing of these funds

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<sup>12</sup> Despite considerable budget surpluses, the government has a large internal public debt amounting to S\$ 102,371.9 million at end-1997, equivalent to 71.6% of GDP. Thus, large budget surpluses and large public debt co-exist. Since much of the debt is non-marketable, there is little activity in the secondary market for government bonds.

<sup>13</sup> Investment of pension funds abroad is usually recommended as a way to attain diversification of country and other risks. However, the investment arrangements in Singapore do not permit an assessment of the extent to which such diversification has occurred or its results.

<sup>14</sup> In recent years Singapore has consciously directed a greater proportion of its resources (presumably including the CPF funds) into investments in East Asia, yet has provided no information on the performance of these investments.

for investment is believed to be much greater. Thus, the asset allocation for the insurance funds is much more diversified in comparison to CPF balances. It is therefore not surprising that the rate of return on insurance funds is somewhat higher than on the CPF balances. However, because of their negligible weight in the total investment balances, their impact on the interest credited to members is also negligible.

The third pool of investment funds consists of pre-retirement withdrawal funds under the CPF investment schemes. Investment of CPF savings by members started in May 1996 under the Approved Investment Scheme (AIS). The primary aim was to enable members to invest part of their CPF savings in approved instruments so as to enhance assets for old age. Over the years, the investment scheme has evolved to provide diverse options. In October 1993 the AIS was liberalized into a 2-tier scheme – the Basic and Enhanced Investment Schemes (BIS and EIS). These schemes were subsequently merged in January 1997 to form the CPF Investment Scheme (CPFIS), which permits individuals to invest in the stock markets either directly by purchasing CPF approved stock or indirectly through mutual funds (called unit-trusts). Members can also invest in endowment policies, gold, Singapore government bonds, bank deposits, and fund management accounts. Apart from trustee stocks, CPF members can invest in nine loan stocks listed on the main board.<sup>15</sup>

As of end-June 1997, 411,235 CPF members (56.4% of those eligible, but less than a sixth of total members) had withdrawn S\$ 10.82 billion, 44% of the potential amount of S\$ 24.6 billion eligible for investment and an average of S\$ 26,311 per participating member. By May 1998, the amount withdrawn had risen to S\$12.1 billion, of which only S\$400 million (3.3% of the total) had been invested through 22 CPF approved unit-trusts out of a total of about 120. Thus, individuals have chosen to primarily invest on their own. A substantial part of the investment funds have gone to purchase shares during the partial divestment of the state telecom monopoly, Singapore Telecom. Indeed, the government provided discounts and outright subsidies to encourage CPF members to buy the Singapore Telecom shares in 1993 and 1996.

Since their introduction there has been considerable liberalization of investment rules and guidelines governing the unit-trusts. As of January 1, 1998, CPF-approved unit-trusts have been allowed to invest up to 50% of their funds in the following overseas markets: Malaysia, Thailand, Hong Kong, Taiwan, South Korea, U.S., U.K., and Japan. In May of the same year, the Singapore authorities announced further relaxation of rules. The changes include a more transparent way to select CPF approved fund managers and the unit-trusts they offer,

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<sup>15</sup> Net realized profit or loss (gross realized profit plus dividends and interest less bank charges and related costs and CPF accrued interest on the entire investment amount withdrawn) is computed on September 30 each year and credited. In addition to 1% of value of stocks charged by stock brokers on purchase and sale of shares, approved banks also have a fixed dollar charge (subject to a maximum) per transaction of different types. Additionally, approved banks levy a service or administrative charge. The fixed nature of the fees implies a larger proportionate burden on those with relatively small amount of investments.



simplification in the criteria for approving unit-trusts, substantial liberalization of permitted investment by the unit-trusts, and greatly enhanced disclosure requirements. Moreover, for the approved unit-trusts the government removed the 40% limit on investment in non-trustee stocks, the 50% limit on foreign-currency denominated investment, and specification of countries in which investments can be made. Only certain prudential norms remain. The unit-trust management teams are to be encouraged to publicly declare the benchmark against which their performance is to be measured. The CPF Board has classified various approved unit-trusts in terms of their asset diversification and risk levels. Their performance will be regularly published, and an extensive educational campaign to enable CPF members to invest prudently has been launched.

The authorities hope that the removal of previous curbs on asset allocation will improve investment performance,<sup>16</sup> thereby encouraging CPF members to invest primarily through the unit-trusts. Moreover, the measures were designed to encourage the development of the fund management industry, an area in which Singapore aims to develop a competitive advantage. In order to help ensure that these objectives are reached, as of December 1, 1999, individuals will be able to invest only up to 50% of investible funds directly in stocks, while they will be able to place 100% of such funds in the unit trusts.

Some areas, including disclosure and administrative procedures, may need more attention. Requiring Singapore companies to move towards internationally compatible corporate disclosure rules and modes of governance could foster better asset allocation decisions. The Singapore authorities have taken steps in this direction, but there is still considerable room for improvement. Moreover, there may be considerable merit in the proposal for harmonizing disclosure requirements for the ultimate investment (not just the purchase of government securities as currently reported) of the members' CPF balances with those recently announced for the CPF approved unit-trusts. The changes announced for the unit-trusts do not provide for performance standards or regulation of the commission, administrative, and other charges as well as the spread between bid and offer prices. As the average investment per member is likely to be relatively small, transaction costs of operating through unit-trusts are likely to be of some significance, making this an area of concern.

In sharp contrast to the CPF, which has entrusted choices regarding selection of unit-trusts and asset allocation to the individuals, the "Saver Scheme" for the Armed Forces has opted for the centralization of the investment function with professional fund managers identified directly by the Board. This situation may potentially allow the comparison of the two different scenarios in order to reveal information on their effectiveness in minimizing transaction costs and maximizing returns for members. In this regard, it would be useful to

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<sup>16</sup> During the third quarter of 1999, two-thirds of approved unit-trusts made negative returns, and more than half failed to beat their market benchmarks. However, of the 22 approved unit-trusts with at least a three-year track record, 90% showed positive returns; 86% beat their benchmarks; and all those that gained did considerably better than the CPF interest rate.

consider harmonizing the disclosure requirements of the Saver Fund with those recently put forward for the CPF approved unit-trusts.

The expectation that permitting individual CPF members to make their own investments would permit higher returns was not fully realized even before the currency and stock market crisis in Southeast Asia. Thus, during each year in the 1994-1997 period, less than 20% of participating members earned returns above what they would have made had they left the money with the CPF, while in 1998, the corresponding proportion was only 10.0%. For the October 1, 1995 to September 30, 1996 period, 20.7% of those investing made an aggregate profit of S\$ 179.7 million, while 79.3% percent of the members made losses aggregating S\$ 198.7 million (The Straits Times, Singapore, April 9, 1997). During the period October 1996 to September 1997, 11.7% of 434,802 members investing made a profit of S\$ 111.4 million, while 88.3% made losses of S\$ 338 million (Business Times, Singapore, January 20, 1998). Interestingly, during the first ten months of 1997, over half of the 174 CPF trustee stocks underperformed the Straits Times Industrial Index – while the Index fell by over 30%, the worst falls among trustee stocks ranged from 48-65%. The effects of the May 1998 liberalization measures, including removal of specification of countries where investments can be made by the unit-trusts (but not CPF members on their own), are yet to be reflected in the data.<sup>17</sup>

### **III. Reform Issues and Options**

Singapore's pension system has relied almost solely on the state mandated and managed savings pillar for its formal pension system, and this has allowed it to incorporate multiple objectives. In this sense, the CPF is more than a pension scheme. It also provides financing for housing, health care, and tertiary education. To accommodate these schemes, which have evolved gradually over time, it has been necessary to significantly increase the contribution rates, at one point reaching 50% of the wages. In addition, the government has used the disposable income of nearly two-thirds of the labor force to achieve its sociopolitical and economic objectives. The operations of the CPF and excellent information technology infrastructure and skills have provided the policy makers with perhaps an unparalleled databank concerning the socioeconomic profile of the population. Although the system has many strengths, particularly its emphasis on defined contributions and full funding, it also has severe shortcomings. Thus, reform efforts should maintain the system's strengths while addressing its limitations, which revolve around the following issues:

- Low Replacement Rate. High contribution rates and rapid economic and wage growth notwithstanding, the average balances of the CPF members remain rather low. The CPF

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<sup>17</sup> Since the CPF Board has not made the data on the composition of investments and unrealized capital gains available, it is difficult to make a fuller analysis of this issue. It is hoped that, along with the liberalization of the CPFIS sketched earlier, there will be greater recognition on the part of the CPF Board to regard such information as a public good, thereby facilitating fuller analysis of the issue and enhancing transparency.

Board does not publish information on the fund's replacement rates or actuarial status. In its 1987 Annual Report, the CPF Board indicated that the replacement rate would be between 20% and 40%. However, the report did not indicate how these figures could be obtained, and there has been no discussion of the replacement rates in subsequent reports.

Simulation studies by the actuarial firm Watson Wyatt Worldwide in 1996 showed that, assuming the typical use of the CPF, low, middle and high earner single individuals would need to contribute an additional 18.7%, 32.6% and 46.6% of their monthly income to meet the benchmark replacement rate equal to two-thirds of final income. Given the already high CPF contribution rates, additional contributions of this magnitude are not realistic. Moreover, a recent unpublished simulation study by Leong and Das-Gupta (1998) concludes that "...the CPF, by and large, does not adequately provide for old-age security" (10).

The reasons for low CPF balances and replacement rates relate primarily to extensive pre-retirement withdrawals, particularly for housing, and on extremely low real rates of return credited to members' accounts. As noted in the previous section, the implicit tax on the CPF balances is recurrent and quite high. Meanwhile, the CPF Board is accomplishing routine housekeeping functions such as collecting contributions, administering various schemes, record keeping, administering retirement benefits, etc. at fairly low costs.<sup>18</sup>

- Limited risk coverage and protection for the less-advantaged. The CPF does not cover inflation or longevity risks<sup>19</sup> and does not provide survivor's benefits. Also, because it is a defined contribution scheme, it does not have any formal mechanism for distributing the nation's economic growth, thereby accentuating pre-retirement inequalities.

Even the policy makers widely agree that the CPF by itself will be inadequate to finance old age. However, they are reluctant to consider a shift towards a multi-pillar social security system, which would require the strengthening of the tax-financed first pillar. For example, in order to accomplish greater social protection in old age, measures such as the liberalization of public assistance rules and substantial increases in the benefits may need to be considered. Another option would be for the government to supplement the annuity available from members' own balances in order to reach a value necessary for an

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<sup>18</sup> In 1997 the administrative costs of the CPF Board to total contribution ratio was 0.62, while the administrative costs to total balances ratio was 0.12. Moreover, the administrative costs have fluctuated within a fairly narrow range. Thus, the normal housekeeping costs of the CPF Board have not contributed to either the low balances or the low rates of return credited to members.

<sup>19</sup> Under the Minimum Sum scheme, there is an option to purchase an annuity from an approved insurance company that will guarantee a regular monthly nominal income for life, but this option is not popular with retirees as the cash component of the minimum sum scheme is quite small – in 1998 the cash component was only \$16,000 – and many retirees do not even have this amount. In any case, there are no inflation-indexed annuities on the market.

appropriately defined replacement rate (i.e., one that is also inflation indexed and that covers longevity risks).

- Benefits planning. It would also be useful to reconsider the predominance of housing and health financing in the CPF scheme. Relying on greater use of market forces would provide a way to reduce these functions. This would necessitate a reevaluation of the predominant role of the HDB and other governmental agencies in the housing and real estate market. Arrangements for the health sector merit careful consideration since costs are expected to increase significantly.
- Investment function. While no data are available on the transactions costs (including the administrative costs) relating to the CPFIS, these are likely to be substantial, given the low average amount invested under the CPFIS, the fixed nature of many of the fees levied by the banks and unit-trusts, and the lack of competition in the funds management industry. As noted, it would be desirable to require the fund managers to publish rates of return net of fees and charges on their portfolios.

The recent reforms of the CPFIS have generally been in the right direction in terms of diversification of investment portfolio and asset allocation rules. Under the CPFIS individuals make investment choices according to their risk preferences and investor sophistication. But because of the high transaction costs, the CPF Board may want to consider the approach used by the “Saver Scheme” of the Armed Forces under which investment allocation among different fund managers and asset classes is undertaken at the central level, thereby minimizing transaction costs and ensuring the use of expert advice. This would also permit the CPF Board to move away from investing only in government bonds at administratively determined interest rates. The CPFIS could be continued, yet in a form that provides members options in investment portfolios encompassing different risk-return profiles selected in a centralized manner.

- Implicit tax. Another important measure to enhance the rate of return for members would be to eliminate the existing implicit tax. This would require the CPF Board to follow the same disclosure rules required of the unit-trusts under the CPFIS and credit members with all returns earned on the investment of CPF balances. In addition to improving efficiency and equity, this would also substantially increase the transparency of the pension system and reduce its political risks.

The Singapore experience demonstrates both the strengths and the limitations of government mandated and managed defined contribution, fully funded old age protection system. Singapore’s financial and human resources and proven record in responding to the material needs of its population suggest that reform is well within its implementation capacity.

**Annex 1. Various Schemes Under The CPF System**

Type	Scheme	Year Introduced
Home ownership	Approved Housing Scheme	1968
	Approved Residential Property Scheme	1981
Investment	Singapore Bus Services (1978) Ltd. Share Scheme	1978
	Approved Investment Scheme	1986 <sup>a</sup>
	Approved Non-Residential Properties Scheme (ANRPS)	1986
	CPF Investment Scheme (CPFIS)	1997 <sup>b</sup>
	Share-Ownership Top-Up Scheme (SOTUS)	1993
Insurance	Home Protection Insurance Scheme	1982
	Dependents' Protection Insurance Scheme	1989
	Medishield Scheme	1990
Others	Company Welfarism through Employers' Contribution (COWEC) Scheme <sup>c</sup>	1984
	Medisave Scheme	1984 <sup>d</sup>
	Minimum Sum Scheme	1987
	Topping-up of the Minimum Sum Scheme	1987
	Financing of Tertiary Education in Singapore	1989
	CPF Top-up Scheme	1995

a As of October, 1993, this was divided into the Basic and Enhanced Investment Schemes.

b As of January 1, 1997, CPFIS replaced the Approved Investment Scheme, thus eliminating distinction between the Basic and Enhanced Investment Schemes.

c As of January 1, 1999, there will be no more new contributions to the COWEC fund. The scheme is therefore effectively discontinued.

d As of 1993, self-employed persons must contribute to the Medisave scheme.

## Annex 2. CPF Contribution Rates

Effective Date	Nominal Contribution Rates (%) <sup>a</sup>			Effective Contribution Rates (%) <sup>b</sup> Total	Maximum Monthly Contribution <sup>c</sup> (S\$)
	Employer	Employee	Total		
July 1955	5.0	5.0	10.0	9.5	50
September 1968	6.5	6.5	13.0	12.2	300
January 1970	8.0	8.0	16.0	14.8	300
January 1971	10.0	10.0	20.0	18.2	300
January 1972	14.0	10.0	24.0	21.1	360
January 1973	15.0	11.0	26.0	22.6	390
January 1974	15.0	15.0	30.0	26.1	450
January 1975	15.0	15.0	30.0	26.1	600
January 1977	15.5	15.5	31.0	26.8	620
January 1978	16.5	16.5	33.0	28.2	990
January 1979	20.5	16.5	37.0	31.0	1,110
January 1980	20.5	18.0	38.5	32.0	1,155
January 1981	20.5	22.0	42.5	35.3	1,275
January 1982	22.0	23.0	45.0	36.9	1,350
January 1983	23.0	23.0	46.0	37.4	1,380
November 1983	23.0	23.0	46.0	37.4	1,840
July 1984	25.0	25.0	50.0	40.0	2,500
July 1985	25.0	25.0	50.0	40.0	3,000
April 1986	10.0	25.0	35.0	31.8	2,100
July 1988	12.0	24.0	36.0	32.1	2,160
July 1989	15.0	23.0	38.0	33.0	2,280
July 1990	16.5	23.0	39.5	33.9	2,535
July 1991	17.5	22.5	40.0	34.0	2,400
July 1992	18.0	22.0	40.0	33.9	2,400
July 1993	18.5	21.5	40.0	33.8	2,400
July 1994	20.0	20.0	40.0	33.3	2,400
January 1999 <sup>d</sup>	10.0	20.0	30.0	27.3	N.A

*Notes:*

N.A: Not Available

- a: The contribution rates apply to monthly wages exceeding \$363 per month. For those earning below this level, the rates are lower. Since July 1988, the rates have also been lower for those above 55 years of age. The pensionable employees in the public sector also contribute at a lower rate.
- b: Contributions as a share of total gross wage including employers CPF contribution, i.e.:
- $$r_{\text{effective}} = \frac{r_i + r_e}{1 + r_e} \quad \text{where } r_i = \text{nominal employee rate} \quad r_e = \text{nominal employer rate}$$
- c: The maximum amount in this column applies to those below 55 years of age. The maximum contribution is lower for those above 55 years of age. Moreover, the maximum applies only to ordinary wages. For additional wages, such as bonuses, statutory contribution rates apply without limits. Thus, actual CPF contribution may exceed the maximum specified in the column.
- d: The cut is initially planned for two years. For those between ages 55 and 60, the contribution rate is 16.5% percent (4% by the employer and 12.5% by the employee). For those between 60 and 65 years of age, the contribution rate is 9.5% (2% by the employer and 7.5% by the employee). For those above 65 years, the contribution rate is 7% (2% by employer and 5% by the employee).

Source: Central Provident Fund, *Annual Report*, various years; *The Straits Times* (Singapore), Nov. 25, 1998.

**Annex 3. CPF Contributors By Monthly Wage Level, 1987 and 1997**

Wage Level (S\$)	1987		1997	
	Number	%	Number	%
All contributors	935,330	100.0	1,224,195	100.0
Below 1,000	574,332	61.4	215,587	17.7
1,000 – 1,999	232,486	24.8	443,066	36.2
2,000 – 4,999	105,388	11.3	455,946	37.2
5,000 – 5,999	7,126	0.8	34,539	2.8
6,000 and above	12,896	1.4	67,877	5.5
Unspecified	3,112	0.3	7,180	0.6

Source: Republic of Singapore, Ministry of Manpower, *Singapore Year Book of Manpower Statistics*, 1997, Table 2.2, p.18.

#### Annex 4. Selected Indicators of Singapore's Central Provident Fund, 1983-1997 (All currency amounts in million S\$)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Coverage</b>															
Members (thousands)	1778.9	1852.5	1891.7	1933.8	1988.5	2063.4	2126.9	2195.2	2255.7	2322.8	2456.4	2521.8	2683.0	2741.8	2782.0
Contributors (thousands)	917.9	943.0	889.6	912.0	935.3	963.8	988.6	1021.7	1052.4	1074.0	1107.1	1138.9	1174.8	1193.9	1224.2
Contributors/Labour Force (%)	70.9	72.3	69.1	70.2	70.4	69.9	69.4	65.4	67.7	66.3	67.7	67.3	67.2	66.3	65.3
Contributors/Members (%)	51.5	50.9	47.0	47.2	47.0	46.7	46.5	46.5	46.7	46.2	45.1	45.2	43.8	43.5	44.0
<b>Excess of Contributions Over Withdrawals (During Period)</b>	2772.6	1874.5	2633.5	935.5	149.3	974.6	2444.0	3170.7	3436.5	3609.9	(522.2)	3987.0	6283.4	4093.4	4398.3
Member's Contributions	4491.0	5385.2	5393.4	4777.8	4446.8	4985.1	6107.5	7174.2	8101.4	9208.2	10427.0	11279.0	13536.1	14623.0	15873.8
Gross National Savings (GNS)	16306.1	18596.4	16543.4	15588.5	16304.8	20224.0	25381.1	29930.0	34497.5	39370.4	42363.2	52625.5	60720.1	66455.5	75144.7
Contributions as % of GNS	27.5	29.0	36.2	30.6	27.3	24.6	24.1	24.0	23.5	23.4	24.6	21.4	22.3	22.0	21.1
Contributions as % GDP	12.2	13.4	15.4	12.4	10.4	10.0	10.9	10.6	10.8	11.4	11.1	10.4	11.2	11.0	11.1
Withdrawals: Amount	1718.4	3510.7	3359.9	2824.3	4297.5	4010.5	3663.5	4003.5	4664.9	5418.3	10949.2	7292.0	7252.7	10529.6	11475.5
As % of contributions	38.3	65.2	62.3	59.1	96.6	80.4	59.9	55.8	57.6	58.8	105.0	64.6	53.6	72.0	72.3
% of total withdrawals for:															
Approved Housing Schemes (a)	65.3	76.7	76.4	69.2	61.6	69.2	65.9	56.4	64.3	66.7	32.1	48.0	64.1	48.0	50.1
Under Section 15 (b)	33.8	21.2	20.9	22.9	17.4	19.6	22.9	25.5	20.5	18.7	10.8	18.7	20.0	15.5	13.5
Medical Schemes (c)	n.a	0.5	1.3	2.7	3.3	4.2	4.9	5.9	5.7	5.1	2.7	3.8	5.0	3.7	3.7
Others (d)	0.9	1.6	1.5	5.1	17.7	7.0	6.3	12.1	9.4	9.5	54.4 (e)	30.0	10.9	32.8 (e)	32.4 (e)
<b>Members Balances (End Period)</b>	19504.7	22670.4	26834.1	29341.4	30607.8	32529.3	36051.6	40646.4	46049.0	51526.9	52334.3	57649.0	66035.4	72566.6	79657.4
As % of GDP	53.1	56.6	68.9	75.9	71.7	65.5	64.1	59.9	61.1	63.6	55.5	53.3	54.7	54.7	55.7
Public Debt	25031.5	28077.3	32164.4	33793.1	38274.3	41830.7	46209.7	51425.6	59041.1	67252.5	69882.0	75344.4	86507.6	94474.8	102371.9
As % GDP	68.1	70.1	82.6	87.4	89.7	84.2	82.2	75.8	78.4	83.0	74.1	69.6	71.7	71.2	71.6
<b>Rate of Return to Members</b>															
Implicit interest rate (f)	6.1	6.1	6.2	5.5	3.7	3.0	3.1	3.7	4.5	3.8	2.6	2.4	3.4	3.5	3.5
Inflation Rate (% change)															
Consumer Price Index	1.2	2.6	0.5	(1.4)	0.5	1.5	2.4	3.4	3.4	2.3	2.4	3.1	1.7	1.4	2.0
GDP Deflator	3.9	0.7	(1.2)	(1.4)	1.2	6.2	4.8	4.9	3.7	1.0	5.5	3.8	2.6	1.4	1.4
Real Rate of Return (g)	2.2	5.4	7.4	6.9	2.5	(3.2)	(1.7)	(1.2)	0.8	2.8	(2.9)	(1.4)	0.8	2.1	2.1
Rate of return -- Insurance funds															
Implicit interest rate	N.A	N.A	4.7	6.4	5.1	6.2	7.6	4.1	6.6	5.1	9.4	3.6	3.8	4.3	1.3
Real rate of return	N.A	N.A	5.9	7.8	3.9	0.0	2.8	(0.8)	2.9	4.1	3.9	(0.2)	1.2	2.9	(0.1)

Note: N.A: Not Available. (a) The housing schemes are: Approved Housing scheme introduced in 1968, and Approved Residential Property Scheme, introduced in 1981. (b) Under Section 15, the main withdrawals are for retirement, death, disability, and leaving Singapore and West Malaysia permanently. (c) The Medical Schemes are: Medisave Scheme introduced in 1984, and the Medishield Scheme introduced in 1990. (d) The "others" category mainly includes various pre-retirement investment schemes, and loans for financing tertiary education in Singapore. (e) The high proportion of withdrawals for this category was due to the partial divestment of Singapore Telecom, a government telephone monopoly. (f) The implicit interest rate is calculated as follows: Total Interest amount credited to members as shown in the CPF Board's Annual Reports, divided by the average of the beginning and the ending balances of the CPF members during the year. (g) The real rate of return is estimated as the difference between the implicit interest rate and the GDP deflator.

Sources : Calculated from CPF Annual reports; Republic of Singapore, Dept. of Statistics, *Yearbook of Statistics*; Monetary Authority of Singapore, *Annual Report* – various years.



**Annex 5. Average Balances Per Member and Average Monthly Earnings, 1987-97**

(1)	(2)	(3)	(4)	(5)=(4)/(3)
Year	Average Monthly Earnings (excluding Employer's CPF Contributions) <sup>a</sup>	Average Monthly Earnings (including Employer's CPF Contribution) <sup>b</sup>	Average Balance Per Member	Average Balance Per Member/Average Monthly Earnings (including employer's contribution)
1987	1176	1335	15458	11.6
1988	1273	1426	15790	11.1
1989	1398	1608	16313	10.1
1990	1528	1773	18504	10.4
1991	1669	1969	20421	10.3
1992	1804	2129	22191	10.4
1993	1918	2282	21361	9.4
1994	2086	2503	23059	9.2
1995	2219	2663	24640	9.3
1996	2347	2816	29503	10.5
1997	2480	2976	28633	9.6

*Notes:*

- a Includes all remuneration received before deduction of the employee's CPF contributions and individual income tax, which includes basic wage, overtime payments, commissions, allowances and other monetary payments, annual wage supplement, and variable bonus.
- b This is calculated as the amount in column (2) + Employer's CPF contribution. This is only an approximation due to wage ceiling for employer's contribution.

*Source:* Average Monthly Earnings from Republic of Singapore, Ministry of Manpower, *Singapore Year Book of Manpower Statistics, 1997*, Table 2.2, p.18. Average Balance per Member from data in Tables 1 and 5 of this paper.

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## Thailand\*

### Overview of Formal Old-Age Support

After passage of the Social Security Act and establishment of the Social Security Office (SSO) in 1990, Thailand introduced a comprehensive social security program with the following implementation schedule: (i) introduction of sickness, invalidity, maternity and death benefits to employees of enterprises with 20 or more workers (March 1991);<sup>1</sup> (ii) extension of coverage to enterprises with 10 or more workers (September 1993); (iii) initiation of voluntary insurance service (September 1994); (iv) provision of old-age pension insurance and child allowance schemes (January 1999); (v) expansion of coverage to employees of non-agricultural enterprises with more than one worker (January 2001); and, (vi) organization of unemployment benefits.

The old age pension system intends to guarantee a replacement rate of 15% after 15 years of contribution (with an additional 1% for every extra year), starting from as early as age 55. Financing comes from equal contributions by employers and employees starting at 1% of the employee wages (not exceeding 15,000 baht/month) in 1999 and increasing by an additional 1% each in 2000 and 2001. Government will contribute a fixed 1% for all years.<sup>2</sup>

In 1996 the government ordered all state agencies to set up provident funds, and in 1997 it introduced a national pension fund for civil servants and military personnel, the Government Pension Fund (GPF), which is replacing a defined benefit plan. As for the private sector, all companies approved by the Board of Investment or listed on the Stock Exchange of Thailand, all financial institutions, plus all government concessionaires (e.g., in the telecommunications, oil, gas and mining sectors) had to set up their respective provident funds by June 1998. New companies that apply to belong to any of these groups have to agree to create their own provident fund within 12 months of establishment.

In order to provide some type of safety net for the poor, the government has gradually put a number of programs in place. These include national health insurance for the poor and nearly poor and small scale indigent and elderly grant programs. In 1993 the Department of Public Welfare began to provide monthly subsistence allowances to indigent elderly in rural areas, and the program expanded to cover 318,000 persons by 1997. Despite the fact that these public assistance programs (estimated at about 0.2% of GDP) target the most needy segments of the population, their benefits are very small when compared to private informal assistance.

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\* Yvonne Sin (ysin@worldbank.org) and Ian W. Mac Arthur (imacarthur@worldbank.org), The World Bank, HDNSP prepared this profile.

<sup>1</sup> The scheme excludes government officials and regular employees of the central, provincial and local administrations, employees of foreign governments and international organizations, and employees of schools, universities or hospitals.

<sup>2</sup> As of 2001, the contribution rate is expected to remain at 7% (1% from the government, 3% from the employer and 3% from the employee). In 1996, before the crisis, B\$ 25.34 equaled US\$ 1.00. In 1997 the government devalued the currency, and by 1998, B\$ 41.36 equaled US\$ 1.00.

## **I. Background**

Thailand's economy performed remarkably well during the three decades prior to the mid-1990s. From 1965 to 1980 real growth averaged 4.6%, and for the last 15 years real growth has averaged over 6.5%. Real per capita growth quadrupled between 1965 and 1995,<sup>3</sup> and households living in extreme poverty (those living on less than \$1 a day) represented less than 1% of the population in 1995.

Thailand's labor force in 1998 numbered 32.1 million of a total population of 60.6 million (end-1997). During the past decade, there has been a structural shift in employment patterns from the agriculture sector to the manufacturing and service sectors. Nearly 80% of the adult workforce, or approximately 26 million people, are unskilled and comprised of unpaid family workers in agriculture, self-employed urban workers, and workers in very small enterprises.<sup>4</sup> Although Thailand has demonstrated high overall primary school enrolment, enrolments at the secondary, vocational and university levels remain very low.<sup>5</sup> As such, there is a current shortage of skilled technicians and professionals, and demand for skilled workers should reach almost six million in the next five years. The government has recognized the need for training and educational reforms and has set the goal of improving the resource base of skilled professionals. At the same time, most multinationals seek to overcome the skill shortage by providing extensive training on-the-job or overseas. Since multinationals invest heavily in human capital, these companies tend to provide more comprehensive and valuable benefits to attract and retain their personnel.

Demographic trends, specifically declining fertility and increased life expectancy, are driving population aging. The total fertility rate decreased from 5.50 in 1970 to 1.78 in 1996, a level comparable to those in developed economies such as Finland and Australia. Wider use of contraception (now at 75.2% compared to 57.9% just a decade ago), better education and higher labor force participation explain this trend. The reduction in age-sex-specific mortality rates led to a rise in male life expectancy at birth from 60 years in 1975 to nearly 70 in 1995; female life expectancy increased from 64 to 75 during the same period. However, due to the surge in incidence of HIV-AIDS, average life expectancy will likely experience a modest set back over the next ten years before resuming an upward trend. Overall, the proportion of those aged 65 and over currently stands at 5% (slightly higher than the roughly 4% in other Asian countries) and is expected to exceed 25% in 2040.

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<sup>3</sup> GDP per capita (in ppp terms) equals about US\$ 6,000, which is less than the GDP per person in Hong Kong, Taiwan, South Korea and Malaysia, but more than in Indonesia, China and the Philippines.

<sup>4</sup> More than 50% of the workforce are employed as farmers and fishermen (Kakwani, 1998).

<sup>5</sup> Seventy-one and two-tenths percent of the workforce have some elementary education or none at all; 15.9%, secondary schooling; 3.1%, vocational schooling; 7.4%, university education; and 2.3%, teacher training.

The Seventh National Economic and Development Plan recognizes large income disparities and the much higher incidence of poverty among households in the rural and urban informal sectors as major social problems. Nearly 85% of the population inhabit rural areas, including the northeastern region, which is the poorest, and the northern region, which has the oldest population (with a median age 2.3 years higher than the rest of the country). These rural inhabitants are much poorer and have greater need for social protection of various kinds. In contrast, a small number of individuals – business entrepreneurs, professionals, or employees of large, affluent and mostly international companies – enjoy income levels that approach international standards. It is generally believed that the recent economic crisis hit urban areas more severely than rural areas, but high labor force mobility may have helped ameliorate the effects.

In mid-1997 massive capital outflows obliged Thailand to devalue its currency and set high short-term interest rates of 18% per annum, which resulted in a severe economic crisis. In 1998 the official unemployment rate climbed to around 5%, inflation rose to a high of nearly 11% and real GDP contracted by over 10%. Evidence suggests that the incidence of poverty rose from 11% to 16%, representing an increase in the number of poor people from 6.8 million to 9.6 million. This resulted more from a drop in real income than from the rise in unemployment, considering its initially very low level. The value of real wages fell between 10% and 22%, depending on the region of the country and type of employment.

Although the economy has exhibited a strong recovery, its benefits have not reached everyone. Restoring lost income to the poor will depend partly on continued economic expansion. The crisis has also left a legacy of greater household insecurity.

## **II. Analysis of the Pension System**

The old age income support system in Thailand consists of several components highlighted in the overview: (i) the social security scheme for private sector workers, (ii) the Government Pension Fund for public sector workers, and (iii) provident funds for state agencies and certain types of private companies.<sup>6</sup> The analysis of the system in this section focuses on issues of varying relevance for the different schemes: benefit design, coverage, fiscal sustainability, administration, investment policy and tax treatment.

### **Benefit Design and Coverage**

The benefit design of the old-age pension of the social security system presents several distortions. The use of the last five years of earnings as the wage base for determining old-age benefits for the pension delinks benefits from contributions and may lead to strategic manipulations, effectively reduces coverage by encouraging evasion, and results in

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<sup>6</sup> This section does not directly address public safety net programs for the indigent elderly.

disproportionately high benefits to workers with steep age-earnings profiles. For instance, one may decide to work double time for the last five years to double pensions; or alternatively, one could avoid contributing for extended periods but make sure that the final five years of earnings count towards the wage base and the required 15 years of contributory service.

After expansion to enterprises with more than one worker in 2001, the old-age pension scheme should cover around 30% of the labor force – current coverage stands at about 18%. Thus, even if the ambitious objective of expanding coverage to all workers in the formal labor force (including the self-employed) were to be achieved, a large portion of the labor force (i.e., those in the informal sector) would still be excluded.<sup>7</sup> In addition, current non-compliance or evasion in the social security system is estimated at around 25% and could be as high as 40%.<sup>8</sup> The people who are most likely to evade contributions belong to lower-income groups with the greatest need to maximize current cash income. But workers in the informal sector and workers who evade pension contributions comprise the largest segment of the population that will be subject to income risk in old age.

Labor force coverage under the provident funds is rather limited. The GPF has approximately 1.3 million members (4% of the labor force), while 54 state-owned enterprises have provident funds covering about 211,000 employees (less than 1% of the labor force). Provident funds for around 4,000 private sector companies number almost 1,000 and reach approximately 1 million workers (3% of the labor force). Therefore, on the whole, provident funds cover less than 10% of the total labor force and less than 50% of formal sector workers.

### **Fiscal Sustainability**

Simulations performed by IMF and World Bank specialists indicate that very substantial increases in the contribution rate would be needed to assure financial equilibrium of the Old Age Pension Fund of the Social Security Office in the first half of the next century. The equilibrium contribution rate is estimated at 13%, while the required contribution rate to keep current balance from going negative could reach as high as 23% before the end of the next

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<sup>7</sup> At the end of 1997, the social security system covered about 6 million workers in 90,000 workplaces, which left close to 80% of workers, the poor and the unemployed without coverage and dependent on traditional, informal safety nets.

<sup>8</sup> The economic contraction triggered by the Asian financial crisis caused increased unemployment, and rising contribution rates for the social security system represent a growing tax on labor. Since the proposed pension system requires a contribution history of at least 15 years, it cannot protect the current generation of retirees, and it has little to offer workers 40 years and older over in the short term. More importantly, the proposed design, which uses the limited earnings record to calculate initial pension, is likely to deter participation in the formal market and encourage evasion.



century.<sup>9</sup> Under the proposed contribution/benefit structure, the government is assuming an implicit pension debt on the order of 39% of GDP by the year 2030, which will soar to around 72% of GDP a century later. Furthermore, cash flow financing will no longer be feasible when the current balance begins to turn negative in 2027. By 2048, all accumulated reserves will be exhausted. If contribution rates cannot be raised, any resulting deficits will have to be passed onto the government budget, to be paid for by future generations. Alternatively, benefits will have to be cut. In view of the systematic intergenerational transfer implicit to pay-as-you-go systems, it is critical for the government to address the system's long-term financial problems.

It is the government's intention to invest the excess cashflow generated as a result of the time delay between the immediate accumulation of contributions and the beginning of old-age benefit payments in 2014. Preliminary actuarial analyses show that the pension fund will grow to about 375 million baht (5% of GDP) within 10 years of inception. With the accrual of pension assets and the accompanying requirement for optimal portfolio allocation (i.e., to attain the highest possible return for a given level of risk), there will be an increased demand for innovative, long-term assets that are priced fairly by the market. These developments will prove to be beneficial for the financial market in terms of the supply of appropriate debt and equity instruments, which will help to render the market deeper, more liquid and sophisticated. Still, despite improved returns with financial market development, the long-term unsustainability of the system cannot be avoided.

In order to ease the fiscal impact of pension arrangements for public employees, the government is substituting the defined benefit, pay-as-you-go system that it financed through general revenues with a partially funded system (the Government Pension Fund, GPF). Membership in the GPF is compulsory for those joining government service as of March 27, 1997 – others can choose between joining the fund or remaining in the previous scheme. Contributions to the fund amount to 3% each for employees and the government as employer.

### **Administration, Investments and Tax Treatment**

The SSO, formally established under Article 19 of the Social Security Act, is now one of the departments under the Ministry of Labor and Welfare. Its main responsibilities are to monitor and manage the operations of the Social Security Fund and the Workmen's Compensation Fund and perform the administrative functions of the Social Security Committee. These include collection, compilation and analysis of data pertinent to social security; organization and registration of employers and insured persons; provision of

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<sup>9</sup> These calculations assumed that the pension reserve will accrue at market rates of return and will be higher than average wage growth. In case these assumptions do not materialize, either because of non-performance of the portfolio or a higher than expected growth in the age-earnings profile, the deficit situation could be worse.

recommendations for social security policies when needed, etc. The chief executive of the Office is the Secretary General, who is assisted by three deputies (all civil servants).

Since 1991 SSO has been administering a program that offers sickness, disability, and maternity benefits and has shown some weaknesses. Among its responsibilities are collecting contributions, maintaining records and paying benefits. While there has been some improvement in administration, a number of problems are still prevalent within the system, including large numbers of unverifiable records in the data base, incorrect employee information, and coding error in contribution records (an error rate of as high as 20% has been estimated). SSO is charged with executing many functions for which its employees have not been specifically trained, and while it has managed to become sufficiently operational, staff capacity has been taxed beyond its limits. Introduction of the old-age pension scheme will undoubtedly exert further demands on the already over-stretched staff. For example, as the reserve fund grows, there will be increased need for expertise in investment management. However, budget constraints and the noncompetitive salary structure will continue to render the hiring and retention of qualified staff very difficult.

The Social Security Fund, provident funds and Government Pension Fund all have similar investment regulations, which has contributed to the development of similar investment portfolios (see Asher, 1999). At least 60% of the Social Security Fund balances must be in safe assets such as government bonds, including state enterprise bonds and treasury debenture, and debt instruments of commercial banks, while 30% must be in assets with little risk, such as finance and security company debt instruments and projects generating indirect benefits for insured persons. The Government Pension Fund also has to place at least 60% of balances in cash, government bonds, treasury bills, etc. and may not diversify internationally. A board of 22 members (10 ex-officio, 9 government representatives and 3 outside experts) governs the GPF, and, while it manages some of the funds in-house, it has sub-contracted part of the investment function to 5 external fund managers and the tasks of membership registration and record keeping to an outside firm. As for the provident funds of the private sector companies<sup>10</sup> – handled by around 40 authorized fund managers – and state enterprises, almost the same investment rules apply, although up to 40% of private provident fund resources may be invested in the stock market or in corporate bonds.

These investment policies have resulted in rather passive portfolios, likely with low rates of return.<sup>11</sup> Total household savings in provident and pension funds at the end of 1998 were 314 billion Baht, equivalent to 6.7% of GDP. Provident funds accounted for 50%; the government pension fund, 31%; and the Social Security Fund, 19%. Provident fund resources at end-1996 were distributed among cash and deposits (49%), corporate debentures

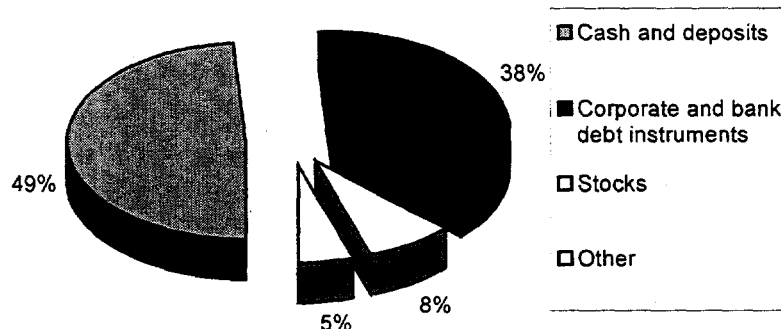
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<sup>10</sup> The private provident funds have experienced loose regulation under the Ministry of Finance, but recently, the government proposed a series of amendments to the Provident Fund Act that would refine regulation and transfer authority to the Securities and Exchange Commission.

<sup>11</sup> Little consistent information is available on rates of return (see Asher, 1999).

(28%), bank dept instruments (10%), stocks (8%), and other investments (5%). Similarly, Social Security Fund assets at end-1998 were invested in fixed deposits (47.4% in State Enterprise Banks and 41.4% in commercial banks) and bonds and debentures (11.2%) (Asher, 1999; see Figure 1 for aggregate portfolio).

**Figure 1. Aggregate Investment Portfolio (Provident Funds and Social Security Fund)**



Thailand adheres to the “exempt-exempt-exempt” taxation regime for its old-age pension schemes, except for benefit distributions prior to retirement age due to separation from service, in which case the benefits are subject to tax. As is the case in other countries in the region, such a tax regime is generous. In any case, the benefit/contribution link for the OAP is weak, which could imply a distorted tax structure for some income groups.

### III. Reform Issues and Options

Since the Fourth National Economic and Social Development Plan, the Thai government has targeted the reduction of income inequity as a major goal. Despite its efforts, there is clear evidence that inequality has been on the rise.<sup>12</sup> Consequently, the Seventh National Plan (1992-96) proposed specific actions to narrow gaps in income distribution and reduce regional disparities in living standards through a major expansion of the Social Security Act. Added benefits would include the old-age pension insurance and child allowance schemes scheduled to take effect as of January 1, 1999. The old-age pension insurance scheme is the first formal public retirement protection system in Thailand. However, in the long run the system may not be fiscally sustainable, depending not only on the current government’s ability to levy taxes, but also on whether future governments will have the political will to honor the commitments. Furthermore, as an employment-related pension scheme, it faces certain limitations. It lacks the poverty alleviation component necessary in a public system to assist the lifetime poor, and it does not firmly address the widening income gap between rich

<sup>12</sup> The per capita income-based Gini was 42.6% in 1975 and 54.6% in 1992 (Atinc and Walton, 1998).

and poor, or between urban and rural populations. But to improve the system as it is currently planned, the government should focus on the following issues:<sup>13</sup>

- Financial sustainability. The interim solution of lowering the contribution rates is a temporary measure to help the government keep to its pension implementation schedule during an economically depressed period. Clearly, it will compound the deficit problem, and at some point, the government must revisit the task of designing a more sustainable system, taking into consideration the social, labor, and financial factors.
- Administrative autonomy. The current business operations of the SSO are diverse in their range and specialized in their nature – from data processing to policy advice, from revenue collection to fund management. To ensure the security and the effective operation of the SSO, it is necessary to safeguard a certain degree of administrative autonomy. Thus, it is important that the SSO be conferred status as an independent government agency, empowered with the authority to create and implement proper collection policies. In addition, each individual fund within the social security system should be set up as a separate legal entity segregated from the budget and governance structure.
- Administrative capacity. The SSO has achieved a great deal since its establishment in 1990. However, with the enactment of the old-age pension insurance and child allowance scheme, and with contributions likely to quadruple in three years, the workload of the SSO will experience an exponential increase. In view of the fact that the present staff is already taxed beyond its capabilities, immediate and extensive technical assistance should be procured. It is critical that professionals involved with pension reform be given the necessary assistance and training in actuarial methods, computerization, informatics, quality control, as well as other areas essential to the successful operation of a modern social security system.
- Investment management. Although reserves are currently low, their investment will produce important revenue for the system, implying that the SSO needs to prepare appropriately for this function. To ensure optimal performance of the Social Security Fund, it is essential to develop investment policies designed to maximize return in a well diversified portfolio, properly manage risk, and engage the expertise of world-class fund managers through competitive bidding – the Government Pension Fund has already successfully contracted out part of its investment function.

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<sup>13</sup> This section focuses on the Old-Age Pension program of the Social Security Office, but some of the observations apply equally to the provident fund schemes, especially regarding governance and investment management.

There is also need to set policies for investing accumulated social security reserves. The lack of a clear governance structure regarding fund management could easily lead to misallocation, especially if assets are not segregated and money is fungible in the government budget. This is particularly the case in Thailand because the system is very young, which means there will initially be large accumulations of contributions. With the recent economic crisis and the decline in budgetary revenue, the government may be under pressure to utilize the current surplus to finance or subsidize public/social projects. To safeguard funds from usage for infrastructure investment and to help meet ever mounting social needs, accrued reserves should be managed as separate trust funds, with clearly defined governance structures. In principle, partially or fully funded plans have the potential to increase household savings and capital formation. But this potential can only be realized if pension funds are insulated from government manipulation and channeled through the capital markets where incentives exist to select productive investments on a competitive basis.

As it seeks to build a pension system that can provide a social safety net, stimulate financial market development and be sustainable over time, the government needs to be mindful of its obligation to make fundamental changes when the appropriate opportunity arises. In the long run, it will be in Thailand's best interest to develop an integrated, savings-based, social risk management strategy, which would include encouraging the expansion of private provident funds. With this approach, individual savings accounts can be used to manage limited losses associated with retirement, unemployment, sickness/disability and other risk situations. The government's role would therefore be limited to providing backup support for catastrophic events that may exhaust the lifetime savings of ordinary citizens. This support would be at subsistence level and would be financed from general revenue, similar to current arrangements under the means-tested social pension.

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## Vietnam\*

### Overview of Formal Old-Age Support

Since 1962, Vietnam has operated a social insurance-style system for old-age income support. Participation is mandatory for state employees and non-state employees in enterprises with more than 10 workers. There are also separate special schemes for civil servants and military personnel. Private occupational schemes are extremely limited.

The main system has defined benefits and functions on a pay-as-you-go basis. The benefits formula consists of the wage base multiplied by a service factor (3% for the first 15 years and 2% thereafter), with a maximum pension of 75% of average wage in the last 10 years before retirement and a minimum pension equal to minimum wage. Pension benefits are available after 20 years of contributions at the normal retirement age of 60 for men and 55 for women.<sup>1</sup> Certain groups – employees in hazardous occupations, those living in designated areas and war veterans – qualify five years earlier, with only 15 years of service. Benefits are indexed to the minimum wage, which during the past few years has increased less than the average wage. System revenue comes through contributions of 20% of basic wages, divided between the employee (5%) and the employer (15%).

Similar to other transition economies, Vietnam had few formal safety nets in the past as a result of the government's approach to welfare provision for workers (involving employment in state enterprises in urban areas or collective agriculture in rural areas and free or subsidized goods and services). Currently, the policy objective of social assistance is to enable certain groups to produce and provide only for the most vulnerable, a reflection of the general aversion to income transfers in Asian societies. Despite this general approach, the government makes payments to around 1.4 million persons with "revolutionary merit" affected by the war of reunification (certain veterans, widows, elderly parents, and children of the killed or disabled). These transfers, through the Social Guarantee Fund for War Affected Groups, relate to previous service as opposed to household economic level, and upper and middle income groups receive most of the benefits.

The critically vulnerable groups derive categorical program benefits through a different source, the Social Guarantee Fund for Regular Relief, which assists (i) old people without other support (60,000), (ii) orphans (37,000), (iii) street children (2,000), and (iv) invalids (63,000). Other social assistance measures include institutional care for those who cannot live in the community (20,000), disaster relief and food aid (Contingency Fund for Pre-Harvest Starvation and Disaster Relief), and a child protection program. In 1993 Vietnam created a scheme for the distribution of land formerly held by cooperatives in which the elderly received 50-80% of the land allocated to the non-elderly. This served as an important welfare benefit since the able elderly, their families or tenants could farm the land, which was capable of producing at the subsistence level.

\* Ian W. Mac Arthur, HDNSP, The World Bank (imacarthur@worldbank.org) prepared this profile. Pat Wiese provided initial background material.

<sup>1</sup> Old-age grants (lump sum) apply to individuals with less than 20 years of contributions at retirement.

## **I. Background**

After years under a socialist planned economy, Vietnam officially began a series of market reform policies in 1986. The government still maintains a heavy hand in the transition process through regulations and direct interventions – an apparent policy goal is to avoid large increases in income inequality, including rural/urban disparities. The continued predominance of the Party in the decision process and institutions has led to some inefficiencies and the interference of political favoritism in micro-decisions (such as bank lending).

Despite these limitations, the country has demonstrated an impressive economic growth record over the past decade and was only moderately affected by the recent regional crisis. This favorable performance will likely drop off since past growth owed largely to efficiency effects in the agricultural sector that are currently exhausted. The nascent private sector in agriculture, industry and services will require large efforts to mainstream in the formal sector. Otherwise, rising informalization and lower growth rates will create great challenges for social protection (including old age provisions) and the budget.

The dismantling of the collective system and reduction of central subsidies required the government to shift its strategy of welfare provision and procure new partners (e.g., local government, the family, the evolving private sector, etc.). As these actors assume more responsibility, the state intends to focus its attention on the most vulnerable groups. In any case, the family has always played a critical role in the care of the elderly, even during the period of strict socialist government. A cultural heritage favoring family support for the aged – based on ancestor worship, patrilineal descent and patrilocal co-residence, which fostered strong clan and village ties – has shown great resiliency to this day.

Vietnam is one of the Asian countries that has pursued a strong policy of population growth control. The total fertility rate fell from around 6 in the early 1960s to under 3 in the mid-1990s. The speed of this decline is impressive considering that Vietnam remains a rather poor and agricultural society. Fertility will likely fall below the replacement level in the near future.

Although decreased fertility contributes to population aging, a present shortage of persons approaching their elderly years will postpone the pace of population aging for at least another decade. This is a result of a relative scarcity of persons at ages 45-60, a cohort born between 1935 and 1954. The cohort was depleted by (i) a famine in the Red River Delta around 1945 that caused a temporary decline in fertility and a sharp rise in mortality among infants and (ii) the protracted war of reunification (1954-75) in which mortality was highest among those of age for military service (exactly the cohort in question). Thus, the additional numbers of persons aged 60+ will actually fall over the next decade. However, after 2020, the rate of population aging will increase rapidly.



## II. Analysis of the Pension System

### Benefits and Coverage

Actual monthly old-age pension benefits amount to approximately US\$ 23, providing a replacement rate of 69% of average covered wage. However, the replacement rate drops when compared to the total compensation. This is because the basic taxable wage accounts for perhaps only 50% of the total wage. Additionally, until recently state-sector workers have received a large portion of their payment in-kind (e.g., housing subsidies), and although these payments have declined over the past 10 years, they are still significant.

Participation in the pension system is legally mandated for employees of state agencies, party and people's organizations, enterprises belonging to the army or police, state-owned enterprises (SOEs), private firms with 10 or more employees and enterprises with foreign market affiliation (i.e., financed by direct foreign investment, in export processing zones or industrial parks, foreign agencies and international organizations). In practice, coverage under the pension system is very low since it is essentially limited to the state sector – while coverage is almost universal for civil servants and over 90% for SOEs, it is less than one-third for private sector employees – which amounts to about 3.3 million employees out of 34.6 million employed and a labor force of 36.1 million (see Table 1). Thus, contributors comprise only around 9.1% of the labor force. There are nearly 1.2 million old-age pensioners (of all ages), amounting to about 18% of the population aged 60 and over. Due to the low level of taxable wages in the state sector and evasion, the covered wage bill as a portion of GDP is also small (5.1%).

**Table 1. Social Security System in Vietnam – Basic Indicators**

Group	1995	1996	1997	1998
Old Age Retirees	1,201,493	1,184,110	1,176,341	1,196,069
Work Injury	402,081	395,026	380,132	389,130
Survivors	174,438	178,970	171,872	225,766
Sickness, Maternity, Empl. Injury	6,157	11,315	13,542	15,710
Total	1,784,169	1,769,421	1,741,887	1,826,675
Contributors	2,280,000	2,820,000	3,160,000	3,290,536
Contributors/Old Age Retirees	1.9	2.4	2.7	2.8
Contributors/All Retirees	1.3	1.6	1.8	1.8

Source: MOLISA

## **Contribution Requirements, Financing and Fiscal Sustainability**

Employers are responsible for contributing 15% of base salary to the social security system (10% for pension and death benefits and 5% for sickness, maternity and work injury benefits) while employees contribute 5% of wages for pension and death benefits. Employers remit the contributions collected from employees. Contribution rates to the health insurance system are 2% for the employer and 1% for the employee, making an overall rate of 23% of wages for social security and health.

In 1998 pension expenditures were 6,122 billion Dong while income was 9,384 billion Dong, leaving a balance of 3,262 billion Dong that went to a reserve fund (Table 2).<sup>2</sup> This surplus results from an (accounting) reform in 1995 under which the government makes payment for all retirees (and disabled) prior to January 1, 1995. Contributions to the system pay benefits for retirees and other beneficiaries of rights accrued since this date and form a separate fund under the management of the Vietnam Social Insurance Organization (VSI). This reform results, in principle, in repayment of the implicit debt accrued until 1995 and the full funding of new entitlements. In order to accomplish this, however, requires that the benefits and take-up age are in line with the contribution effort and that the accumulated fund receives sufficient and market-based real rates of return – this is, however, not the case. Reserves in this fund have accumulated since the beginning of 1995, averaging excess inflows of over 2,000 billion Dong per year (see next section regarding investment policy and performance). The value of the reserve fund at end-1998 was 8,887 billion Dong, representing 2.6% of GDP. Projected contributions should exceed benefits awarded after 1995 until around 2015, when the system will be compelled to begin drawing down the reserve fund (see Annex 1).

The long-term fiscal sustainability of the system is threatened by several factors. First, the system has reached a fairly high level of maturation, with the ratio of pensioners to contributors (the system dependency ratio) at 36%.<sup>3</sup> Second, it offers very generous benefits that are in some ways wage-indexed. With 30 years of service, an individual is entitled to a replacement rate of 75% of his or her average wage during the last five years. Third, the normal retirement age (at 60 for men and 55 for women) is low in comparison to life expectancy at birth and retirement age. Furthermore, actual age at retirement, at age 53 on average, is about 5 years lower than that foreseen in legislation for both men and women. This implies a long average retirement period of about 16 years. Fourth, as seen earlier, even though the contribution rate appears fairly high (at 20% of wages), it applies only to the basic wage, which accounts for a small portion of total compensation.<sup>4</sup> Finally, there are

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<sup>2</sup> In 1998 VND 13,441.25 = US\$ 1.00.

<sup>3</sup> This excludes disability and survivors' pensioners, who number 389,000 and 227,000, respectively. If they enter the calculation, the ratio rises to 55%. However, their benefits are smaller.

<sup>4</sup> The difference between the "basic wage," which applies to pension benefit calculation, and the actual compensation package varies among SOEs, workers in the Civil Service and those in private companies. This variance can materially affect the actual replacement rate based on the entire pre-retirement income. A survey

considerable problems in contribution arrears from weak SOEs and former SOEs that are confronting the challenges of adapting to a greater market orientation.

**Table 2. Financial Operations of the Vietnam Social Insurance Scheme, billion VND**

	1995	1996	1997	1998
<b>Income</b>	<b>1,978</b>	<b>7,026</b>	<b>8,804</b>	<b>9,384</b>
From the VSI	788	2,588	3,706	4,370
Contribution (20%)	788	2,570	3,614	3,897
Investment income	-	18	192	473
From the State budget	1,190	4,438	5,098	5,014
Pensions	1,149	4,287	5,047	4,996
Administrative expenses	41	118	-	-
Other	0	33	51	18
<b>Expenditures</b>	<b>1,191</b>	<b>4,937</b>	<b>5,932</b>	<b>5,122</b>
From the VSI	42	398	706	975
Pensions	13	224	372	486
Short-term benefits	29	157	216	257
Health insurance contrib.	-	1	3	5
Other (delivery, adm., exp on buildings)	0.1	18	115	227
From the State budget	1,149	4,539	5,227	5,147
Pensions	1,079	4,248	4,996	4,966
Health insurance contrib.	27	117	142	137
Other (delivery, adm., exp on buildings)	43	173	89	44
<b>Balance (to reserves)</b>	<b>787</b>	<b>2,089</b>	<b>2,872</b>	<b>3,262</b>
<b>Reserves (at year end)</b>	<b>790</b>	<b>2,900</b>	<b>5,700</b>	<b>8,887</b>

Source: VSI, 1999.

The loose early retirement provisions pose a special threat to the fiscal sustainability of the system because the government is considering using them as a mechanism to reduce surplus labor in SOEs. Although this may appear to be a relatively low cost means of reducing staff, it is important to bear in mind some of the implications of such a strategy: (i) this type of early retirement increases current fiscal cost in the sense that pension fund reserves must be

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conducted in late 1998, however, suggests that the actual variance between basic wages and total compensation (from one job) is only some 15%.

used to pay current benefits, thereby reducing the potential to pay future benefit promises;<sup>5</sup> (ii) men and women over age 50 and 55 respectively may individually be highly productive so that choosing them exclusively by age may result in a productivity loss; (iii) early retirees may be attracted to return to the SOE labor force while still collecting pensions, resulting in additional fiscal costs and no net employment generation or efficiency gain. An additional vehicle for facilitating early retirement is through the certification by medical examiners of disability attributed to work injury. To the extent that this device is employed, the cost is considerably greater than the early retirement provision for the following reasons: (i) the additional cost and reduction of contributions received may extend for up to 10 years instead of just five; (ii) as above, older individuals of high productivity may be lost; and (iii) the credibility of the work injury scheme is lost.

### **Administration, Management and Regulation**

Up until 1995 the Ministry of Labor, Invalids and Social Affairs (MOLISA) and the Vietnam General Confederation of Labor (VGCL) shared responsibility for administering social security. MOLISA handled long-term benefits (pensions and survivors benefits) while the VGCL managed short-term benefits (sickness, maternity, employment injury and recreation). In February of 1995, the government established the VSI, under direct authority of the Prime Minister, which assumed the long-term and short-term functions formerly divided between MOLISA and the VGCL, administration of the Social Insurance Fund, and implementation of policies and the social security schemes.

The VSI has a hierarchical structure that reaches to the lowest district levels. It has three principal departments at the head office as well as at the provincial and local offices: (i) Collections Department; (ii) Expenditure (Disbursements) Department; and (iii) Planning and Finance Department. There is also an Inspections Department charged with internal review, audit and oversight down to the local level.<sup>6</sup> The VSI has 5,700 employees, with 230 in the Head Office and around 6 each in offices at the provincial and local levels – nearly all of Vietnam's 598 districts have at least one VSI office. The vertical management structure helps avoid the difficulties noted in some countries whereby the national, provincial and local interests may vary and employees may not carry out a central mandate because of their reporting relationships. On the other hand, local agents of the VSI effectuate both collections and disbursement, and the dispersion of responsibility for transferring significant amounts of money gives rise to risks of corruption or fraud. The disbursement process is fully automated, although automation of the collections and account management process is not expected to be completed until 2001.

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<sup>5</sup> There are two principal sources of increased expenditure or revenue loss associated with the early retirement regime: (i) benefits have to be paid for an additional 1-5 years depending upon the age of the individual, and (ii) approximately 23% of base salary is lost because revenues are not received for social security and health insurance contributions.

<sup>6</sup> The VSI is subject to external audit and review by the Ministry of Finance.

According to Decision #20 of January, 1998, the VSI may retain 6% of total collections for the purposes of covering administrative costs and utilize 50% of the accrued returns on reserves to invest in the construction of the material base of the social insurance system, including all fixed costs. So far, actual administrative costs have been less than the 6% amount. In comparison to other countries of the region, this performance is relatively efficient (i.e., somewhat lower than Indonesia and the Philippines) but worse than that of the leaders (i.e., Singapore and Malaysia).

In addition to its functions in collecting contributions and disbursing benefits, the VSI's mandate includes management of the Social Insurance Fund. It can invest the reserves in: (i) interest bearing bonds or securities issued by the government or commercial banks; (ii) direct loans to the national budget, national investment fund and State commercial banks; and (iii) public development projects and enterprises subject to the approval of the Prime Minister. The current composition of the investment portfolio is estimated to be roughly 40% in deposits in public banks, 10% in Treasury Bills, and 50% lent to the government's General Department of Investment or deposited in the Bank of Development and Investment (see Annex 2).

Given the lack of financial instruments and assets in the Vietnamese financial sector and the predominance of public sector investments – due to the fact that funds are basically hostage of the public sector – the returns have been poor. Since late 1995 (when VSI was fully functional), returns have trailed those of comparitors such as time deposits on commercial banks. A weighted average return calculation undertaken by the ILO suggests that the average rate of return in 1998 was 6.6%, which is at least four percent less than equivalent market instruments (see Dorfman, 1999). This indicates that the State effectively decapitalized the fund (or deferred the fiscal costs of liabilities) through the interest rates applied to portfolio assets. Moreover, although the VSI does seek to maximize the return to reserves, there is no explicit strategy towards risk management nor matching the tenure of assets and liabilities (except for the short-term liabilities, i.e., sickness and maternity benefits).

In general the tax regime for contractual savings instruments is fairly liberal. Personal income tax in Vietnam is only applicable to individuals whose incomes are over 2 million Dong (US\$143) per month, who represent a very small proportion of total workers. The individual income tax rate varies from 10% to 60% depending on total income. The corporate income tax rate is 32%. Employer contributions to the mandatory Social Security scheme and to health insurance are deductible as expenses for purposes of corporate income tax, and employee contributions are deductible from individual income taxes. Accruals to life insurance and pension funds are tax exempt, and all social security benefit distributions are exempt from individual income tax, resulting in an “exempt-exempt-exempt” scenario (exempt on all three taxable flows). Meanwhile, contributions to pension annuity plans are

neither deductible from corporate nor personal income for tax purposes, but distributions from life insurance policies and pension plans are tax exempt.<sup>7</sup> The inequality in the tax treatment between the Social Security system and other contractual savings instruments may pose problems for the growth potential of the latter.

### **III. Reform Issues and Options**

As seen above, the fundamental issue in pension reform for Vietnam concerns the long-term financial viability of the system. Some parametric reform may help in the short term, but it would be prudent for the government to consider more comprehensive reforms before the problems become overwhelming.

In principle, one possibility to alleviate the financing situation, at least in the short term, is through expansion of coverage in the private sector that would increase the number of contributors and thereby reduce the system dependency ratio. Potential for expansion is large, given the current low coverage (almost non-existent) in the private sector, which accounts for 91% of the employed labor force, and favorable demographic conditions. It is unclear if this is viable, however, since private sector firms may resist participation due to the contribution burden. Moreover, expansion has significant institutional implications for the VSI and MOLISA and may present unattractive administrative cost levels. For example, VSI has expressed its disinterest in extending an old age insurance scheme to farmers and those involved in other rural activities due to cost reasons – administrative costs for these groups would likely approximate 20%, in comparison to 5% for current contributors. Under these circumstances, it may be most appropriate for government to strengthen incentives for participation among current evaders and develop stronger institutional structures before considering expansion in coverage.

Other aspects of (parametric and operational) reform include the following actions to improve financial sustainability, increase actuarial fairness and reduce moral hazards embodied in the current system:

- carefully regulating the granting of disability and survivors pensions that are under pressure to reduce surplus labor and that incite abuse and high incidence due to very generous benefit levels (disability);
- raising the actual retirement age at least to the legislated level (i.e., reduce early retirement), or higher, considering the current average lengthy retirement period, and bringing the retirement age for women up to that for men;

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<sup>7</sup> This is something of an academic concept since life insurance policies are only two years old and annuities only a month old. The Ministry of Finance is currently reviewing the tax treatment of these distributions.

- adequating benefits to bring them in line with the whole compensation picture (i.e., subsidized goods and services, previous in-kind pay, etc.); and,
- considering reduction in benefit levels, which are very generous considering previous contributions.

The reform effort should place high emphasis on trying to improve the returns to pension reserves by investing in high yielding assets while at the same time managing risk and matching the tenure of the reserves to the maturity of the liability outflows. In the short term it will likely be difficult to pursue this objective given the limited development of contractual savings and term financial instruments in Vietnam. Rather, increasing the returns to pension assets will have to involve rethinking the strategy for asset allocation and marrying it to the medium-term development of the financial markets.

On a more ambitious level, the government may want to consider additional steps, including:

- implementing notional accounts to improve the benefit-contribution link, thus helping to diminish significant evasion, and approximate a DC structure;
- eventually attempting a shift to partial prefunding through a multi-pillar structure; and,
- encouraging the development of financial markets through simultaneous reform, which will also allow for the creation of private savings and investment mechanisms.

**Annex 1. Long-Term Financial Operations of VSI, 1999-2020 (rough estimates)**  
**(in billion VND)**

Year	1999	2000	2001	2002	2003	2004	2005	2010	2015	2020
<b>Income</b>	<b>9,500</b>	<b>11,300</b>	<b>12,300</b>	<b>13,300</b>	<b>14,400</b>	<b>15,600</b>	<b>16,100</b>	<b>19,200</b>	<b>22,200</b>	<b>24,100</b>
Contribution	3,400	3,600	4,000	4,300	4,600	5,000	5,200	7,100	9,800	13,400
Investment Income	500	620	750	890	1,000	1,170	1,310	1,850	1,900	730
Transfer from State Budget	5,600	7,000	7,600	8,100	8,700	9,400	9,600	10,200	10,500	10,000
<b>Expenditure</b>	<b>7,000</b>	<b>8,700</b>	<b>9,500</b>	<b>10,500</b>	<b>11,500</b>	<b>12,700</b>	<b>13,400</b>	<b>17,600</b>	<b>23,900</b>	<b>32,800</b>
Benefit	6,500	8,200	8,900	9,800	10,800	12,000	12,600	16,600	22,600	31,000
Pension pre-1995 (State budget)	5,400	6,800	7,300	7,800	8,400	9,000	9,200	9,600	10,100	9,600
Pension post-1995	810	1,000	1,220	1,550	1,880	2,320	2,650	5,540	10,960	19,310
Short-term benefit	340	360	440	490	560	650	710	1,460	1,480	2,040
Other	250	260	280	310	330	370	390	500	680	930
State budget	205	235	250	270	290	320	320	340	350	340
VSI	17	17	27	37	48	60	72	190	320	590
Administrative and other expenses	250	270	290	310	340	360	370	460	640	880
Balance (w/out investment income)	2,000	2,000	2,000	1,900	1,800	1,700	1,400	-300	-3,600	-9,300
<b>Balance (with investment income)</b>	<b>2,500</b>	<b>2,600</b>	<b>2,800</b>	<b>2,800</b>	<b>2,900</b>	<b>2,900</b>	<b>2,700</b>	<b>1,600</b>	<b>-1,700</b>	<b>-8,600</b>
<b>Reserve (year-end)</b>	<b>11,400</b>	<b>14,000</b>	<b>16,700</b>	<b>19,600</b>	<b>22,400</b>	<b>25,300</b>	<b>28,000</b>	<b>35,500</b>	<b>37,800</b>	<b>10,200</b>

Source: VSI, 1999

Note: some values are rounded



**Annex 2. Investment Portfolio of the Social Insurance Fund Reserves**


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	<u>VND</u> <u>(billion)</u>	<u>Percentage</u>	<u>Interest Rate</u>
1. Bank deposits	1,218	13.7%	
2. Vietnam Bank of Agriculture and Rural Development	650	7.3%	0.9%/month
3. Lang Ha Branch of the Bank of Agriculture and Rural Development	250	2.8%	0.85%/month
4. Vietnam bank of Investment and Development	1,250	14.1%	0.65%/month
5. Hanoi Bank of Investment and Development	100	1.1%	0.60%/month
6. The National Assistance Fund of Investment	500	5.6%	0.55 - 0.58%/month
7. General Department of Investment and Development	2,700	30.4%	0.55/month
8. Hoan Kiem Branch of the Industrial and Commercial Bank	875	9.8%	0.75% - 0.85%/month
9. Ministry of Finance	1,079	12.1%	0.3 - 0.45%/month
10. Treasury Bonds	90	1.0%	9% - 11%/year
11. Other	175	2.0%	
Total	8,887	100.00%	

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Source: VSI, 1999

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### Summary Findings

With the recovery from the recent crisis, countries of the East Asia and Pacific region are rethinking their financial and social policy, including old-age protection. Population aging, in combination with ongoing urbanization and economic transformation, will place increasing pressure on traditional family care arrangements. Coverage under formal pension systems is generally low, and the absence of social safety nets for the needy elderly poses risks in the face of breaks in the economic growth path. In addition to common systemic challenges, formal old-age income support systems confront issues specific to their design type: (i) The national provident fund and social security-style systems with reserve funds have demonstrated problems with investment policy and performance, governance and management. (ii) In the established market economies, social security-type systems are fiscally unsustainable in the long run and often have a weak benefit-contribution link. (iii) These types of systems encounter additional problems in transition economies, including low contribution collection from previously socialized enterprises and rising benefit take-up, partly as a consequence of the policy response to labor market disequilibria. Despite the formidable reform agenda, countries have abundant opportunities to address these issues, and the low level of coverage, predominance of retirement schemes still in evolution and existence of funded provisions in many countries provide an environment conducive to reform. Options involve (i) avoiding mistakes (adopting an integrated view on retirement income provision, balancing individual equity and social equity with efficiency considerations, averting fiscal unsustainability and integrating public and private sector pensions); (ii) being innovative (moving toward a multipillar structure, prudently extending coverage, trying new approaches to reduce administrative costs and extending social risk management through informal support and safety nets); and (iii) fostering financial markets (decentralizing pension fund management; reviewing governance, regulation and supervision; and creating or supporting the provision of new instruments).

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